

IBM TRIRIGA

Project report submitted in partial fulfillment of the

requirement for the degree of

BACHELOR OF TECHNOLOGY

IN

ELECTRONICS AND COMMUNICATION

ENGINEERING

By

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UNDER THE GUIDANCE OF

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JAYPEE UNIVERSITY OF INFORMATION

TECHNOLOGY, WAKNAGHAT

May 2019

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CERTIFICATE

This is to certify that the work titled **IBM TRIRIGA** submitted by **Mohit Sachdeva** in partial fulfillment for the award of degree of Bachelor of Technology of **JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT,SOLAN**, has been carried out under my supervision. This work has not been submitted partially or wholly to any other University or Institute for the award of this or any other degree or diploma.

Signature of Supervisor:

Name of Supervisor: Mr. Deepak Sharma (Principal Consultant)

Date:

ACKNOWLEDGEMENT

First of all, I would like to express my deep sense of respect and gratitude towards my advisor and guide **Mr. Deepak Sharma**, who has been the guiding force behind this work. I am greatly indebted to her for her constant encouragement, invaluable advice and for propelling me further in every aspect of my academic life. Her presence and optimism have provided an invaluable influence on my career and outlook for the future. I consider it my good fortune to have an opportunity to work with such a wonderful person.

She has been great sources of inspiration to me and I thank her from the bottom of my heart.

Signature of the Student

Name of Student Mohit Sachdeva

Date

DECLARATION BY THE SCHOLAR

I hereby declare that the work reported in the B-Tech thesis entitled “**IBM TRIRIGA**”submitted at **Jaypee University of Information Technology, Wagnaghat, Solan, India**, is an authentic record of my work carried out under the supervision of **Mr. Deepak Sharma**. I have not submitted this work elsewhere for any other degree or diploma.

Signature of the Student

Name of the Student Mohit Sachdeva (151015)

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Date:-

ABSTRACT

The IBM Tririga arrangement conveys an incorporated work environment the board framework (IWMS) that coordinates useful models crosswise over land, capital activities, offices, working environment tasks, portfolio information, and ecological and vitality the executives inside a solitary innovation stage.

The Tririga thorough arrangement likewise incorporates the Tririga Platform: a runtime situation for the fast handling of exchanges. The stage is the fundamental innovation for the IBM Tririga applications. The IBM Tririga Application Platform is additionally a lot of program based devices that make and change the applications that IBM Tririga conveys.

The TRIRIGA Platform permits a person building an application to concentrate on what the application should do, the outcome is typically a superb fit for business needs.

In this, I have constructed a application called Car Fleet Management by which an organization will most likely track the rental autos in their stock.

Individuals can lease vehicles at one airplane terminal and return them to an alternate air terminal. This organization approach can result in an unevenness of vehicles at one area and a need to exchange autos between airplane terminals. The application must give a component to exchanging vehicles among areas, and it must almost certainly track the related expenses.

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IBM TRIRIGA

Chapter 1

Introduction

The IBM Tririga solution delivers an integrated workplace management system (IWMS) that coordinates practical models crosswise over land, capital activities, offices, working environment tasks, portfolio information, and natural and vitality the executives inside a solitary innovation stage.

With IBM Tririga real estate management solutions, fund and land officials can see the data they have to settle on choices dependent on land exchanges, predictable pre-assembled rent bookkeeping controls, and computerized rent installment compromise.

IBM Tririga delivers capital project solutions for oversee capital, office, and ecological tasks. IBM Tririga distinguishes subsidizing needs inside capital projects, breaks down task dangers and money related advantages, and mechanizes venture the board controls and cautions that are basic to convey specially appointed activities and projects.

IBM Tririga centralizes and incorporates basic office the board procedures to deal with a dispersed workforce, increment the usage of physical offices, and design an association's work environment.

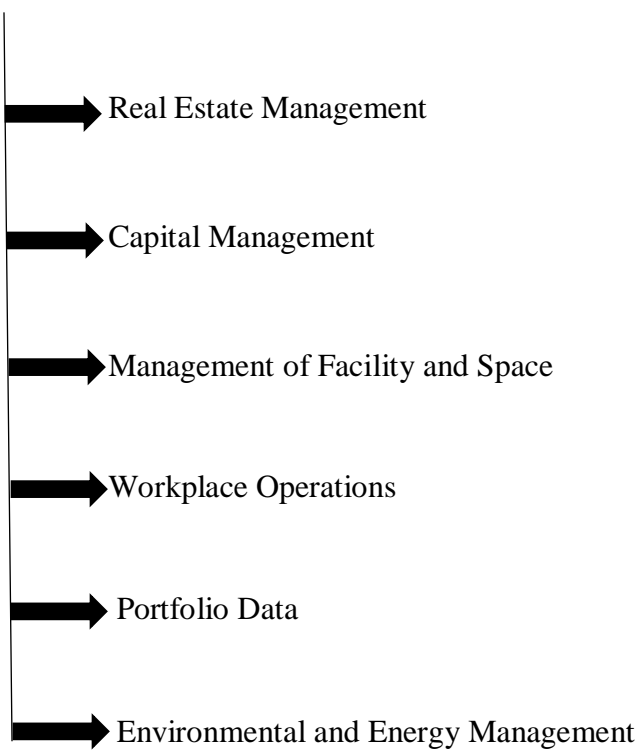
IBM Tririga automates request and preventive upkeep benefits, and improves specialist organization the executives to lessen the expense of support activities. Office appraisal highlights track and assess building and resource inadequacies and help to recognize chances to improve the natural condition and broaden the existence cycle of land and office resources.

IBM Tririga delivers vitality and natural following and the board abilities using a solitary, complete vault of an association's ecological information. This gives the way to quantify and follow vitality and natural execution, assess cost decrease and ROI for chances to lessen vitality, research vital execution enhancements, and oversee venture usage [3].

The IBM Tririga exhaustive arrangement likewise incorporates the IBM Tririga Application Platform: a runtime domain for the quick preparing of exchanges. The stage is the fundamental innovation for the IBM Tririga applications. The IBM Tririga Application Platform is additionally a lot of program based instruments that make and change the applications that IBM Tririga conveys.

1.1 Six platforms of IBM Tririga

IBM Tririga



1.1.1 Real Estate Management

IBM Tririga opens new open doors for improved land the board in three key zones:

- Transaction Management
- Lease Administration
- Lease Accounting

IBM Tririga land director helps, decrease generally costs, increment return on resources and accomplish higher gainfulness.

1.1.2 Capital Management

The three zones reeling the prizes from Tririga Capital Projects Manager:

- Project Portfolio
- Management Project Planning
- Project Schedule Management

Tririga Capital Projects Manager distinguishes needs and open doors for designation of subsidizing inside capital projects, gives venture hazard investigation.

IBM Tririga guarantees propelled venture usage and control abilities required to effectively finish extends early or on schedule, inside spending plan and with the ideal quality.

1.1.3 Management of Facility and Space

TRIRIGA Facilities Space Manager improves the accompanying angles:

- Strategic Facility Planning
- Move Management
- Reservation & Hoteling Management

With a benchmark exact record of your space impression, you are given advanced utilization of Space Planning. Move Management capacities of the application permit us to track all components and complex connections of moves inside the association. Operational costs are diminished by proficiently following moves.

Tririga Facilities Manager and Tririga CAD Integrator encourages, precisely identifies Space Occupancy. Tririga gives a booking framework so as to dispense with inefficient space bringing about improved work profitability.

1.1.4 Workplace Operations

IBM Tririga Workflow Operations Manager is a full-bodied Computerized Maintenance Management System (CMMS) improving these key parts:

- Service Life Cycle Management
- Preventive Maintenance
- Condition Based Maintenance
- Environmental & Energy Analysis

Tririga Facilities and Operations Manager empowers associations to deal with their assets over their lifecycle so as to diminish upkeep costs and convey excellent service. It gives associations noteworthy information expected to safeguard, yet in addition enhance the utility, wellbeing and estimation of their property and resources [2].

Tririga Facility Assessment tracks and assesses structures, gear, the condition of resources and future, recording lacks and ecological open doors to improve the state of land resources. Precise Facility Condition Index (FCI) information is available, coming about with improved capital arranging.

1.1.5 Portfolio Data

Portfolio information is the center data that you use to oversee working environments. Portfolio comprises of data about the associations, areas, individuals, and resources that are related with the space you oversee.

Portfolio Data records in the IBM Tririga Portfolio Data Manager is utilized to follow the subtleties that are important to finish undertakings in different territories of the IBM Tririga. For instance, in the event that you are arranging space distribution or moving individuals to new areas, you need thorough data about the spaces and individuals included.

Portfolio Data records are sorted out in a progressive structure and can be related with different records [1]. All lifecycle occasions that are related with a record can be followed so you have a total history and review trail.

IBM Tririga Real Estate Environmental Sustainability includes portfolio areas and highlights identified with My Company, Building, Land, Structure, and Retail Location business objects.

1.1.6 Environmental and Energy Management

IBM Tririga Environmental Manager focuses on improving the accompanying territories:

- Environmental and Energy Analysis
- Environmental and Energy Project Planning
- Integrated Facility Management

Tririga Environmental Manager offers associations the approaches to accomplish their supportability targets. This should be possible, by following and dealing with the utilization of vitality and ecological execution over their offices and resources. It gives natural information that is utilized to oversee, track and improve ecological execution, assess openings, diminishing expenses and oversee venture usage.

1.2 Building Blocks of Tririga

The TRIRIGA Platform is an independent domain for structure and running business applications. Incorporated with the stage is a great part of the normal rationale utilized for business applications.

To construct a basic application that keeps running in the IBM TRIRIGA Application Platform condition, you need just include four things:

- A portrayal of how the information utilized by the application is composed
- A depiction of what the UI for the application will resemble.
- Portrayals of the reports and inquiries that the application will bolster.
- Custom rationale required for the business forms that the application will bolster.

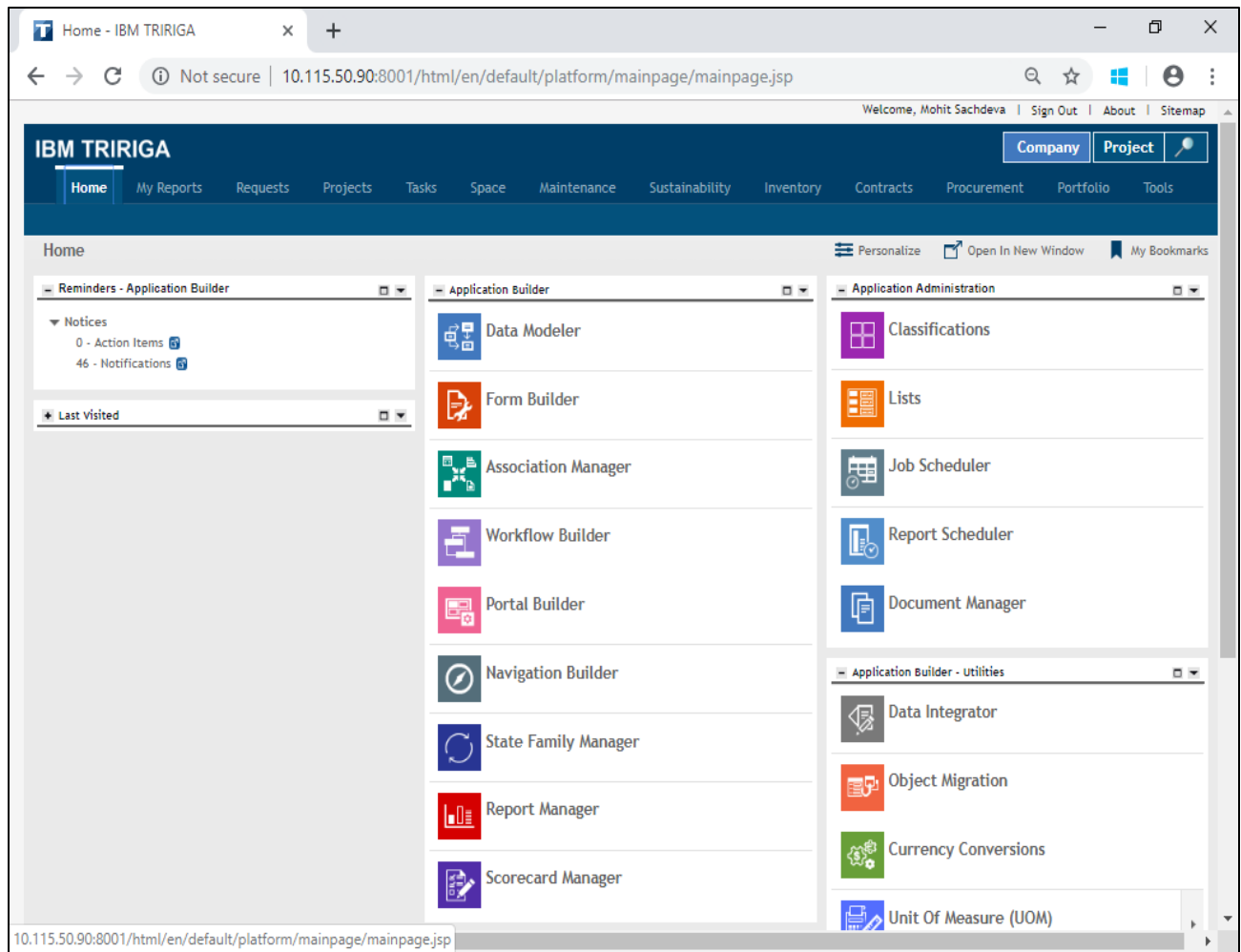


Fig.1.1 Overview of IBM Tririga

1.2.1 Data Model

A Data Model is the depiction of the information that an application employs.

It is sorted out by the accompanying five sections:

- **Field:** Holder for a snippet of data.
- **Business Object:** An accumulation of fields and business rationale.
- **Module:** An accumulation of several BO's.
- **State Families:** Lifecycle of records that are made from a BO.
- **Association:** An association among records.

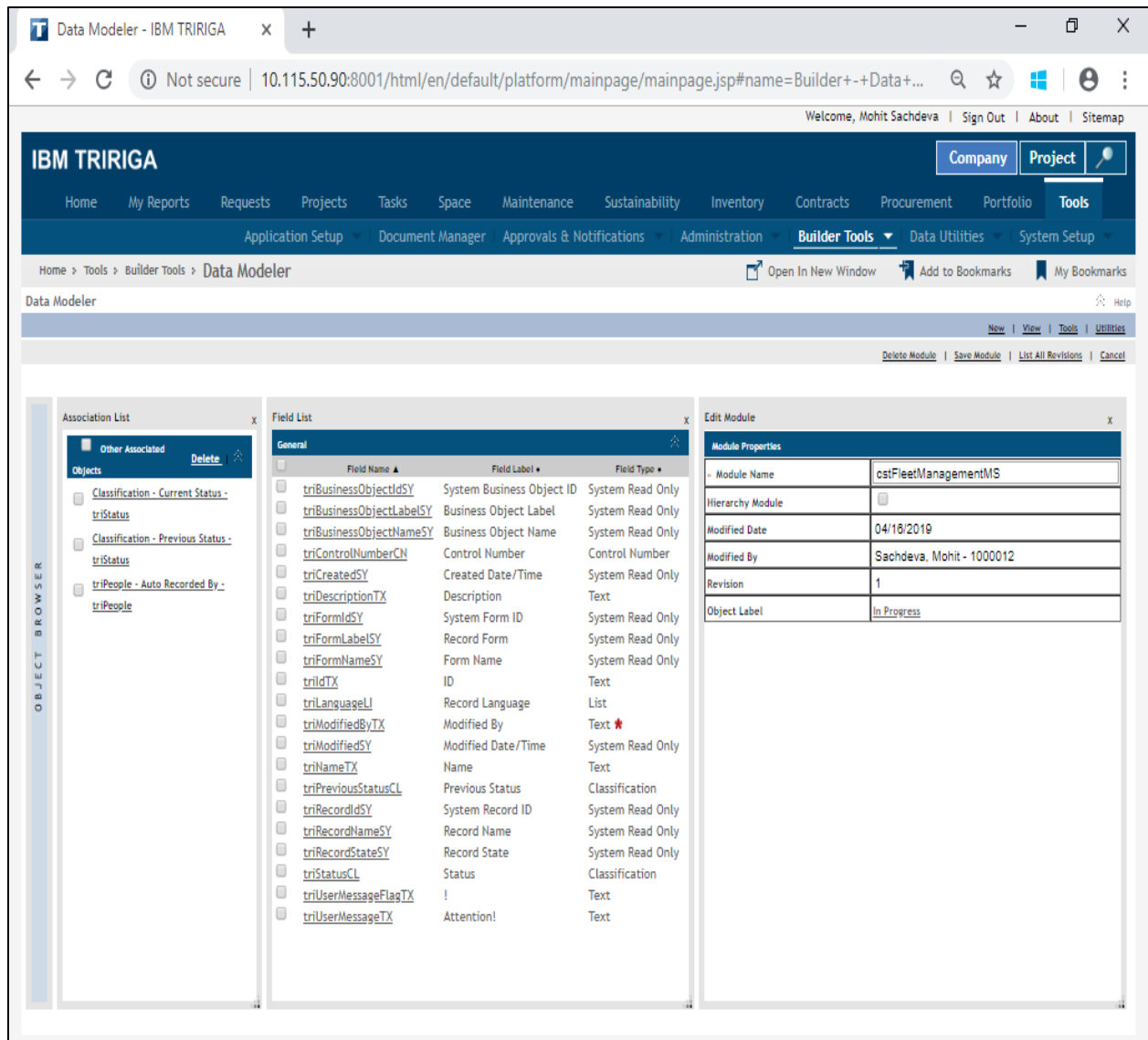


Fig. 1.2 Data Modeler Interface

It is common for most business objects in a data model to closely match the organization of information visible in the application's user interface. However, this is not a requirement.

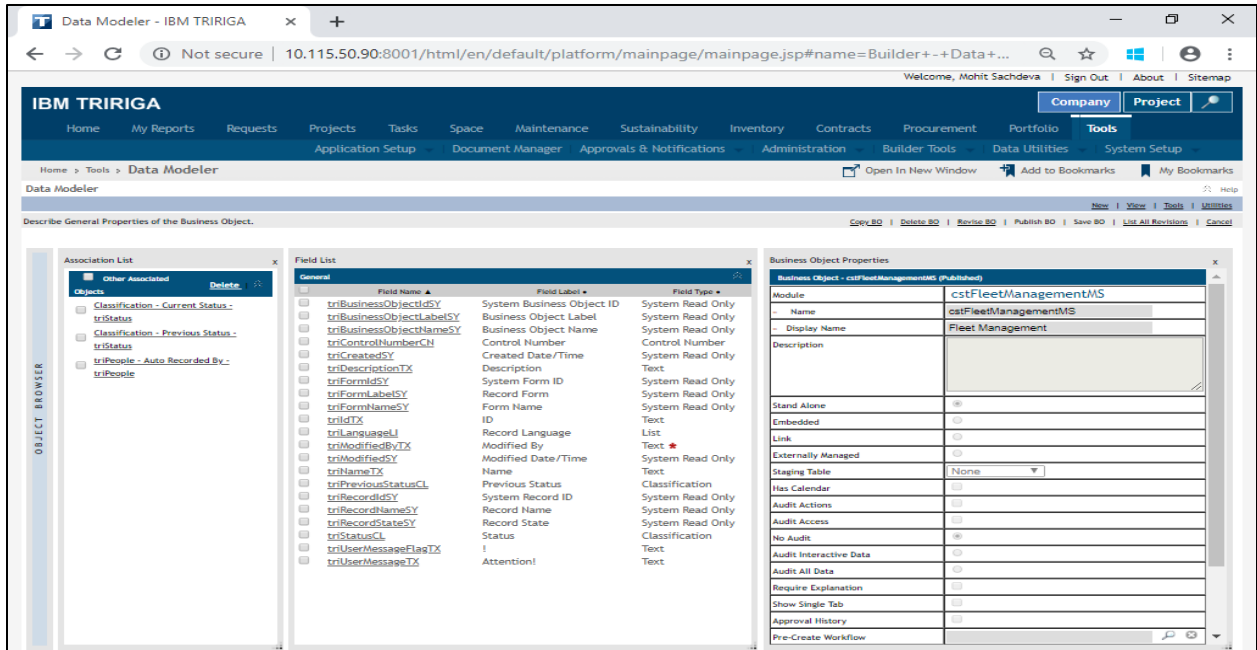


Fig.1.3 Base Business Object

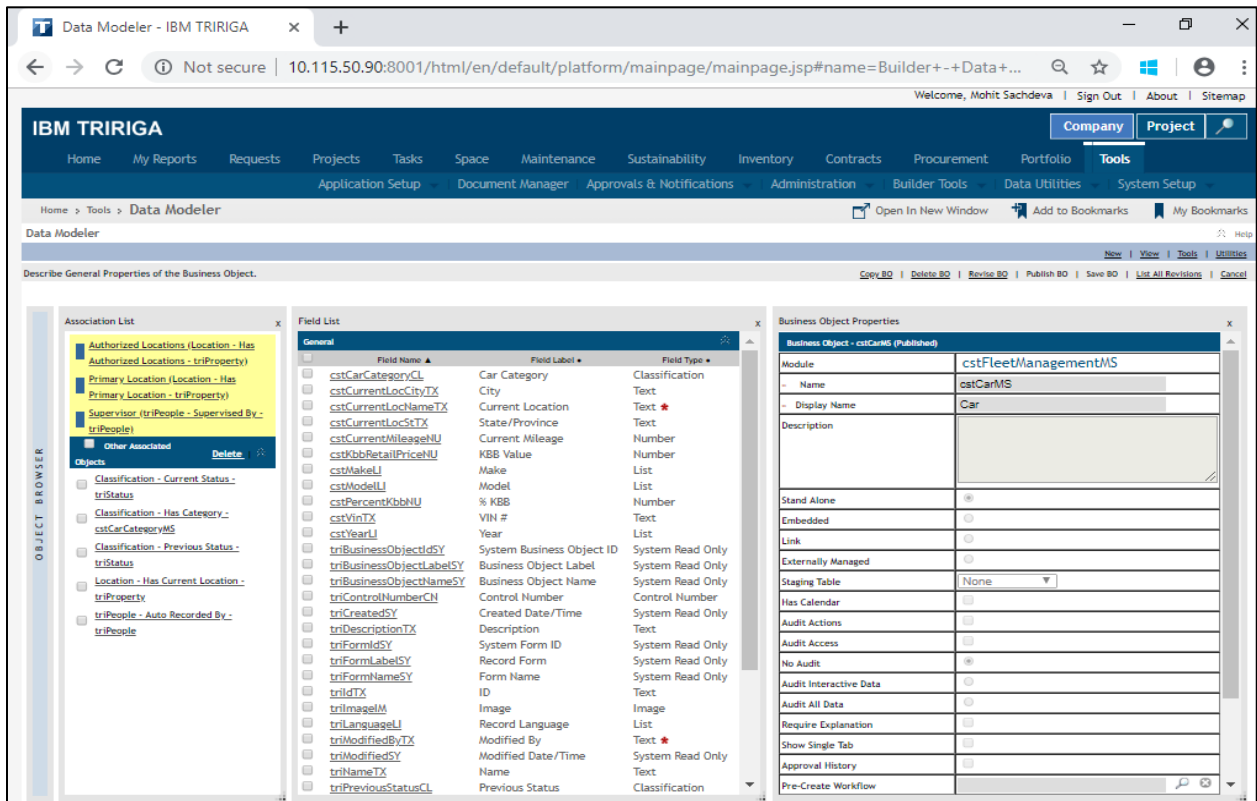


Fig.1.4 Business Object cstCar

The screenshot displays the IBM TRIRIGA Data Modeler interface. The top navigation bar includes 'Home', 'My Reports', 'Requests', 'Projects', 'Tasks', 'Space', 'Maintenance', 'Sustainability', 'Inventory', 'Contracts', 'Procurement', 'Portfolio', and 'Tools'. The 'Tools' menu is expanded, showing options like 'Application Setup', 'Document Manager', 'Approvals & Notifications', 'Administration', 'Builder Tools', 'Data Utilities', and 'System Setup'.

The main content area is titled 'Data Modeler' and contains three panels:

- Association List:** A list of associations including 'Created By', 'Has', 'Requested By', and 'Requested For' for the 'cstCarMS' object.
- Field List:** A table listing fields for the 'cstCarMoveRequest' object. The fields are categorized by type (Date, Duration, Text, Number, Classification, System Read Only, List, Control Number).
- Business Object Properties:** A configuration panel for the 'cstCarMoveRequest' object, showing properties like Module, Name, Display Name, Description, and various audit and workflow settings.

Field Name	Field Label	Field Type
cstDateCompletedDA	Date Completed	Date
cstDateRequestedDA	Date Requested	Date
cstDurationDU	Move Duration	Duration
cstFromCityTX	From City	Text
cstFromLocationTX	From Location	Text *
cstFromStateTX	From State	Text
cstLaborCostNU	Labor Cost	Number
cstMileageCostNU	Mileage Cost	Number
cstMoveTypeCL	Move Type	Classification
cstOverheadCostNU	Overhead Cost	Number
cstToCityTX	To City	Text
cstToLocationTX	To Location	Text *
cstToStateTX	To State	Text
cstTotalBoNU	Total BO	Number
cstTotalWfNU	Total WF	Number
triBusinessObjectIDSY	System Business Object ID	System Read Only
triBusinessObjectLabelSY	Business Object Label	System Read Only
triBusinessObjectNameSY	Business Object Name	System Read Only
triControlNumberCN	Control Number	Control Number
triCreatedSY	Created Date/Time	System Read Only
triDescriptionTX	Description	Text
triFormIDSY	System Form ID	System Read Only
triFormLabelSY	Record Form	System Read Only
triFormNameSY	Form Name	System Read Only
triIDTX	ID	Text
triLanguageLI	Record Language	List
triModifiedByTX	Modified By	Text *

Fig.1.5 Business Object cstCarMoveRequest

A business object may be used to create records that are used only for Behind - the-scenes processing. The information in such records may not appear anywhere in an application's user interface.

1.2.2 Form builder

The TRIRIGA Platform gives an apparatus named the Form Builder to characterize and overseeing structures to make, see and alter the substance of records. Each structure made by the Form Builder is related with a business object.

Numerous structures can be related with a similar business object. This permits various structures to give various perspectives on the information in similar sorts of records.

The screenshot displays the IBM TRIRIGA Form Wizard interface for the `cstCar` form. The interface is divided into several sections:

- Navigation:** A tree view on the left shows the hierarchy: `cstCarMS` > `cstGeneral` > `Attention!`, `General`, `Details`, `Supervisor`, `Locations`, `cstSystem` > `Attention!`, and `Record Information`.
- Layout:** The main area shows a form with several tabs: `Attention!` (highlighted in yellow), `General` (highlighted in cyan), `Details` (highlighted in cyan), `Supervisor` (highlighted in cyan), and `Current Location` (highlighted in cyan).
 - General:** Contains fields for `Make`, `Year`, `Model`, `ID`, `Car Category`, `VIN #`, `Name`, and `Status`.
 - Details:** Contains a `Description` text area, `Image`, `Current Mileage`, `KBB Value`, and `% KBB`.
 - Supervisor:** Contains fields for `Name`, `Work Phone`, `Address`, `City`, `Title`, `eMail`, `State/Province`, and `Zip/Postal Code`. It also includes buttons for `Current Location`, `Primary Location`, and `Authorized Locations`.
 - Current Location:** Contains fields for `Current Location`, `City`, and `State/Province`.
- Properties:** A panel on the right shows the properties for the `cstGeneral` tab, including `Name`, `Label`, `Tab Information`, `Instruction`, `Visible`, `Access Key`, `Style Class`, and `Custom`.

Fig. 1.6 Form Wizard Interface for `cstCar` form

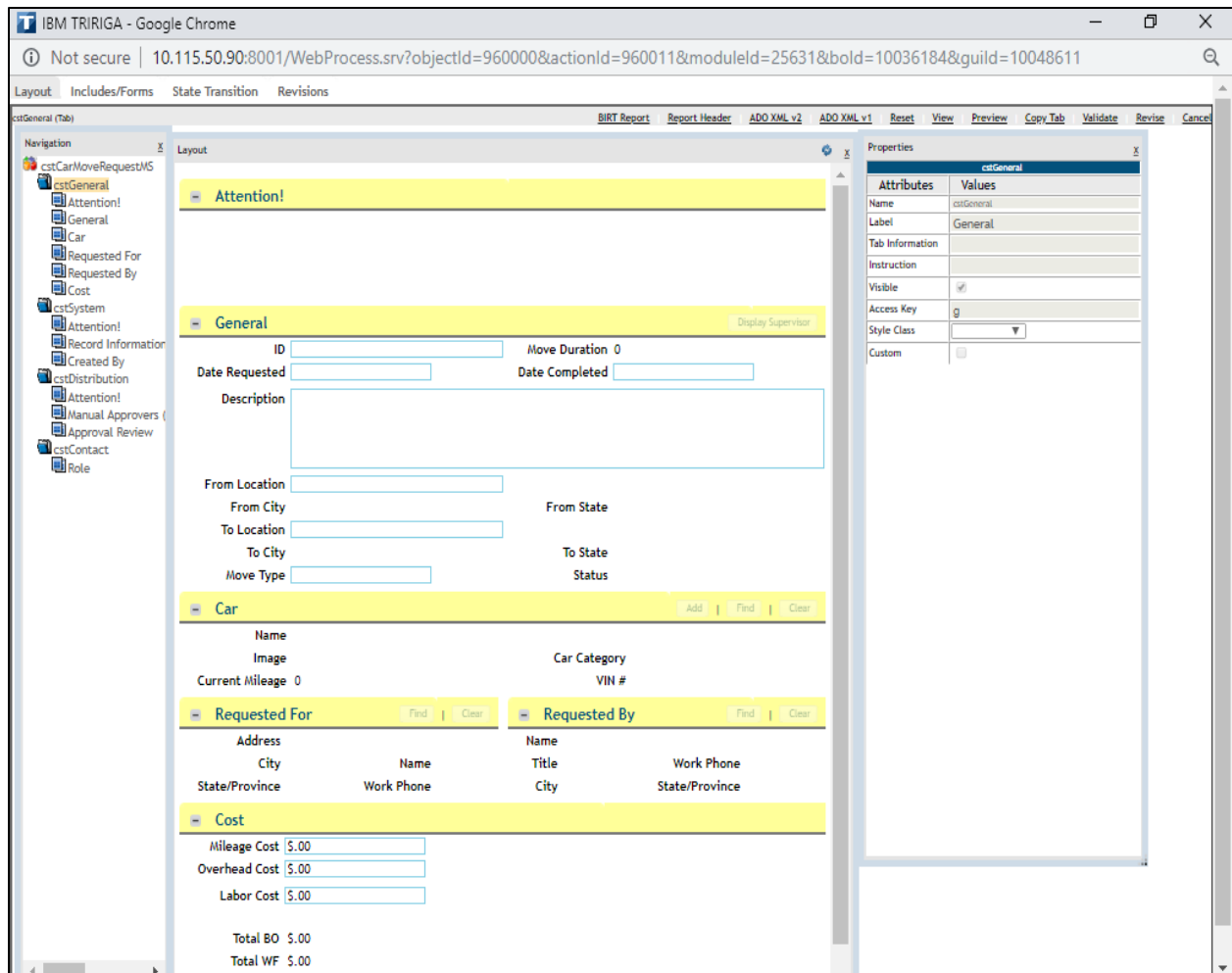


Fig.1.7Form Wizard Interface for cstCarMoveRequest form

The fields in a structure can contain values for a record made utilizing the business object with which the structure is related. A structure likewise can show esteems from fields in different records. A structure can even show name handle that are not associated with any record whatsoever. Structures use work processes to control the association between the client and the structure. A work process is a succession of undertakings you can indicate to be performed consequently.

A Form is sorted out in a progressive system.

Car: 2002-Honda-Accord-DI-100001 - Google Chrome

Not secure | 10.115.50.90:8001/WebProcess.srv?objectId=750000&actionId=750011&propertyId=208133&projectId=1&specClassType=25631&specId...

Car: 2002-Honda-Accord-DI-100001

General System Workflow Instance Reports Associations

Final Approval Hidden Return Revision Hidden Return Draft Hidden More x


General

* Make Honda
 * Year 2002
 Car Category Hard Top
 Name 2002-Honda-Accord

* Model Accord
 * ID DI-100001
 VIN # DEF921765
 Status Review In Progress

Details

Description Black colored with advanced air bags installation.

Image 

Current Mileage 35000
KBB Value \$15,000.00
% KBB 15

Supervisor

Name Courtney Cox
 Work Phone 7926538765
 Address Ramesh Nagar, New Delhi, India

Title Supervisor
 eMail monika.7@gmail.com

City New Delhi
 State/Province New Delhi
 Zip/Postal Code 519

Current Location Primary Location Authorized Locations

Current Location

Current Location Barcelona Airport
 City Barcelona
 State/Province Barcelona

Final Approval Hidden Return Revision Hidden Return Draft Hidden More x

Fig.1.8 A record in a cstCar form

Car Move Request MS: 2004-Toyota-Corolla - Google Chrome

Not secure | 10.115.50.90:8001/WebProcess.srv?objectId=750000&actionId=750011&propertyId=208133&projectId=1&specClassType=25631&specId...

Car Move Request MS: 2004-Toyota-Corolla

General System Notification Contact Workflow Instance Reports Associations

Revise More x


General

ID
 Date Requested 04/26/2019
 Description
 Move Duration 1 Week 6 Days 5 Hours 41 Minutes 34 Seconds
 Date Completed 05/10/2019

From Location Zurich Airport
 From City Zurich
 To Location Frankfurt Airport
 To City MUNICH
 Move Type Within State

From State Zurich
 To State MUNICH
 Status Active

Car

Name 2004-Toyota-Corolla
 Image 
 Current Mileage 12000

Car Category Sedan
 VIN # ABC195490

Requested For

Address Mac n Cheese, Pune, India
 City Pune
 State/Province Pune

Name Jessica Alba
 Work Phone 8926548340

Requested By

Name Amanda Sayfrieds
 Title Supervisor
 City Zurich
 Work Phone 5763576898
 State/Province Zurich

Revise More x

Fig.1.9 A record in a cstCarMoveRequest form

1.2.3 Navigation Items

Route things enable individuals to make, see, and alter related kinds of records, in addition to other things. A route thing can be designed to show as a gathering of structures, aftereffects of a question, and progressive information. Route things can be arranged to show a default ace/detail question, known as a chief inquiry, that gives a standard route to the records of a structure to be shown. In the event that clients working in various jobs need various perspectives on records or various approaches to control similar records, their requirements can be served by making route things that utilization an altered inquiry to deal with a portion of similar sorts of records be that as it may, in various ways.

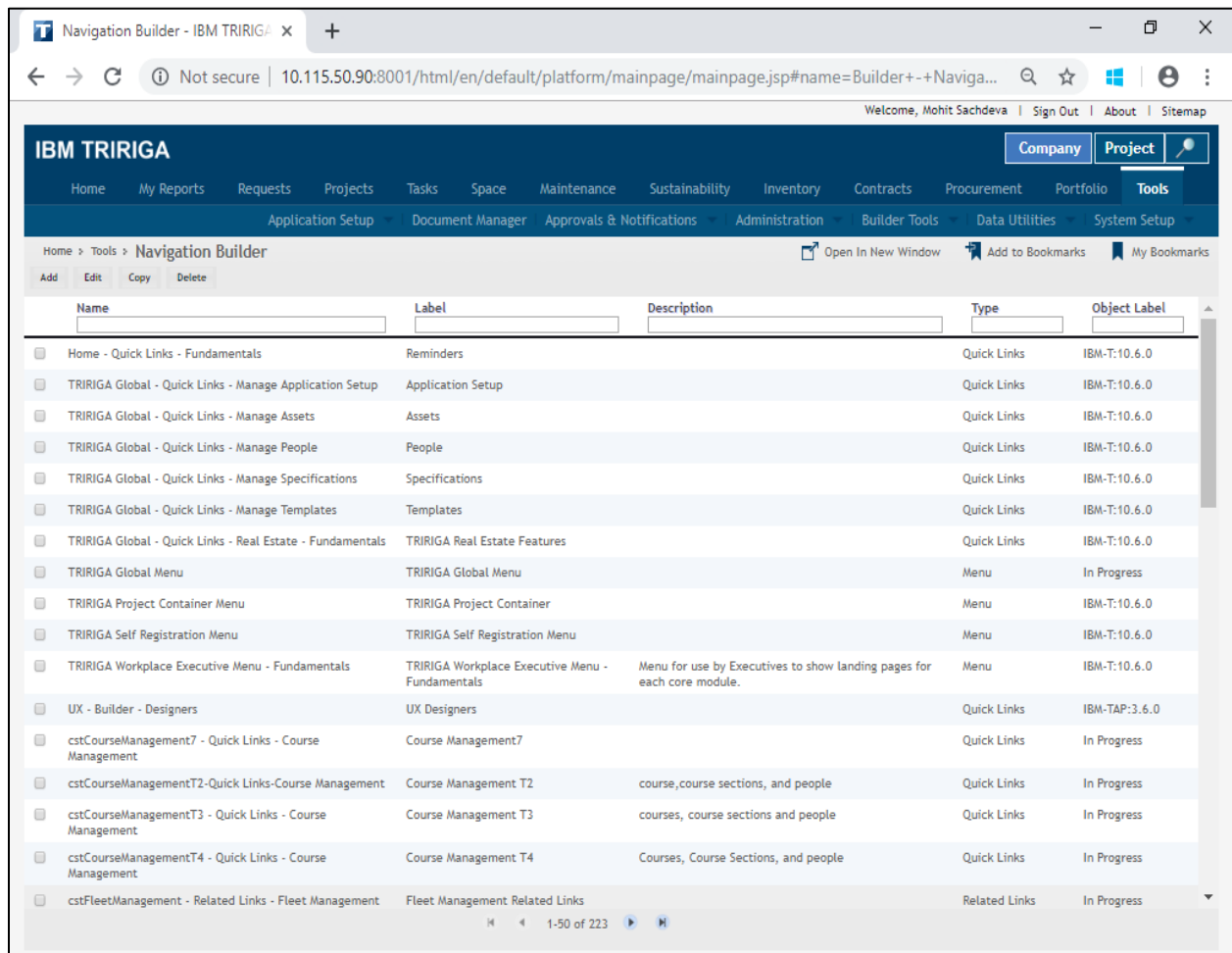


Fig.1.10 Navigation Builder Tool

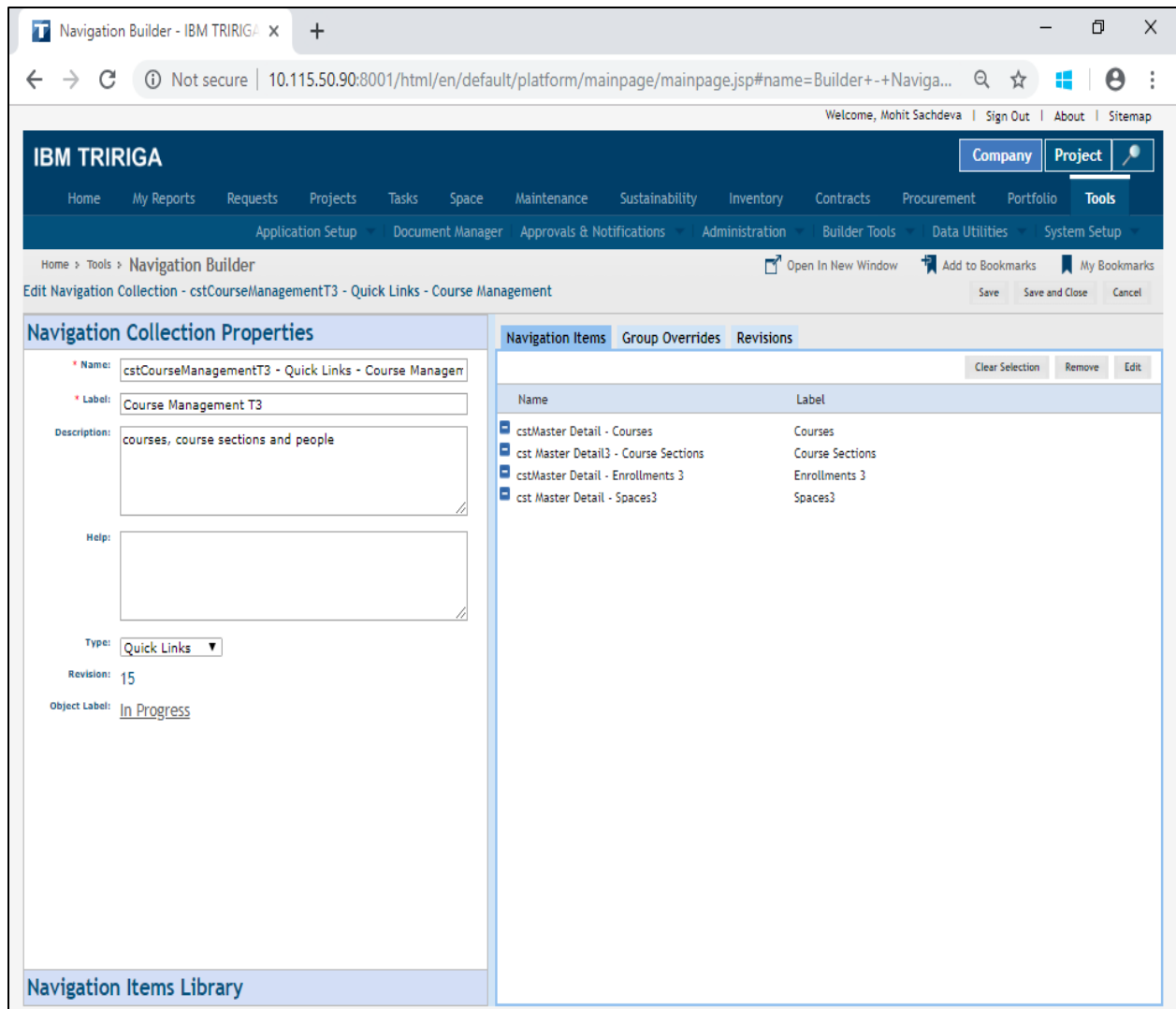


Fig.1.11 Navigation collections

- Navigation items control movement in IBM Tririga.
- Navigation items are contained in navigation collections.

You use route things to control your development in IBM Tririga. Route things are adaptable and sufficiently conventional to speak to menus and entrance snappy connection areas, show progressive information, run reports, and connection to other manufacturer instruments. You can likewise arrange them to show a default ace/detail query, which is known as a manager query. It gives a standard path to the records of a structure to be shown.

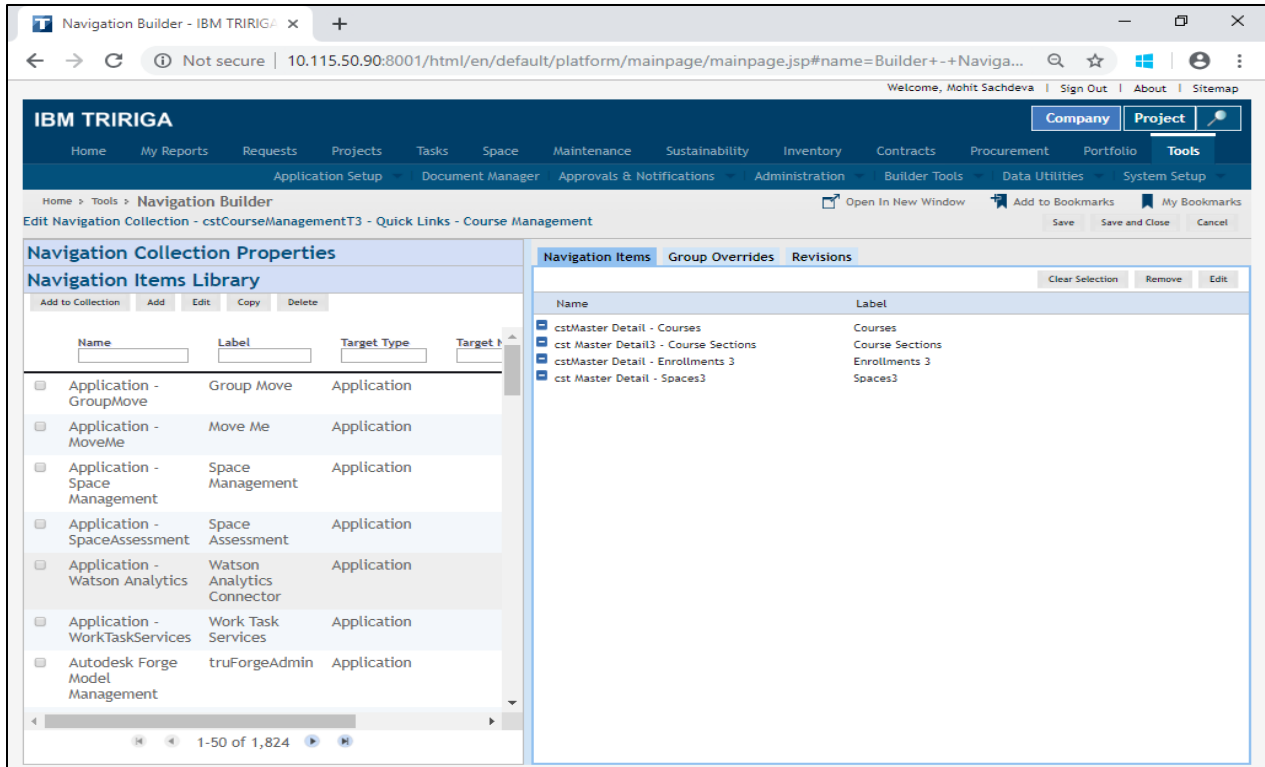


Fig.1.12 Navigation Items Library

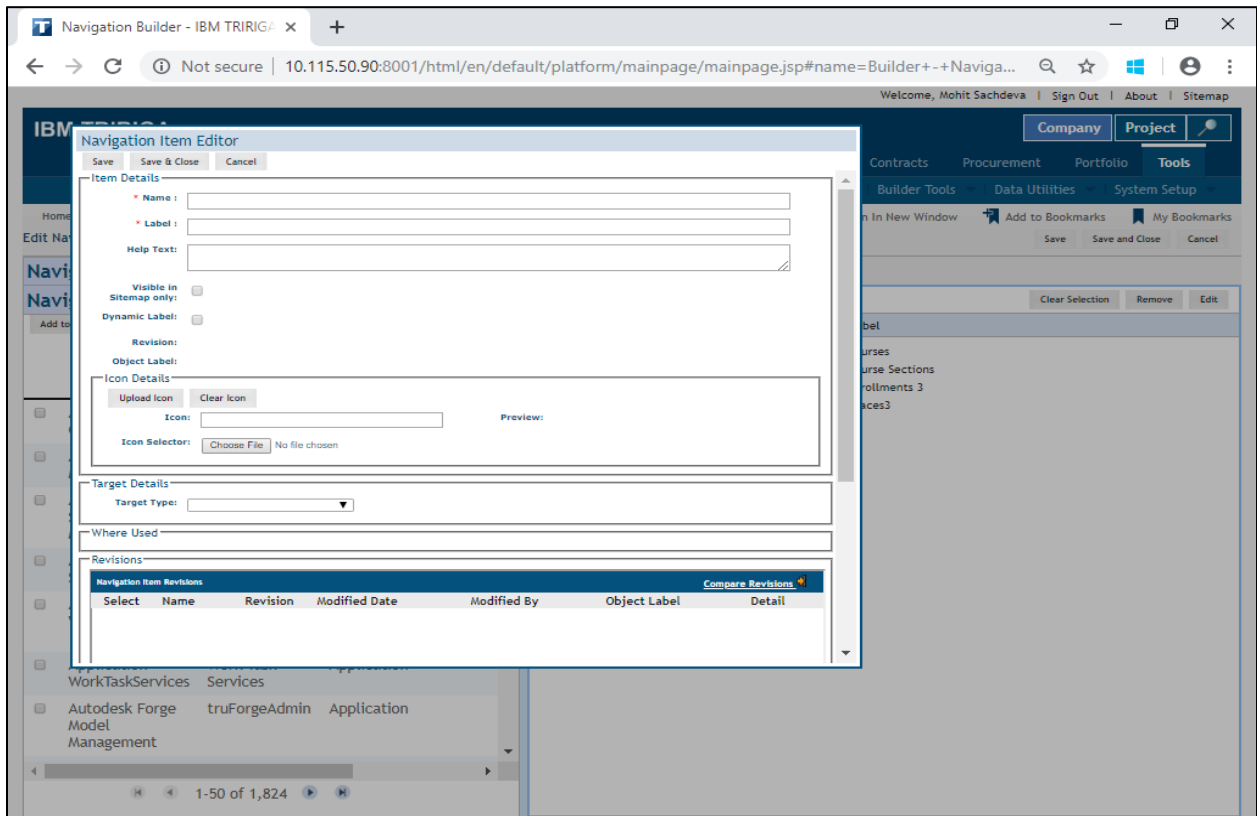


Fig.1.13 Creating a Navigation Item

1.2.4 Portals

A gateway is the landing page for an application. When someone signs in to the Tririga Platform, the vital thing they see is their passageway. At the highest point of the gateway is the header area containing a logo, Sign Out connection, and related data. Quickly underneath is the menu district, which shows menu alternatives. The remainder of the gateway, the substance region, comprises of increasingly complex graphical parts.

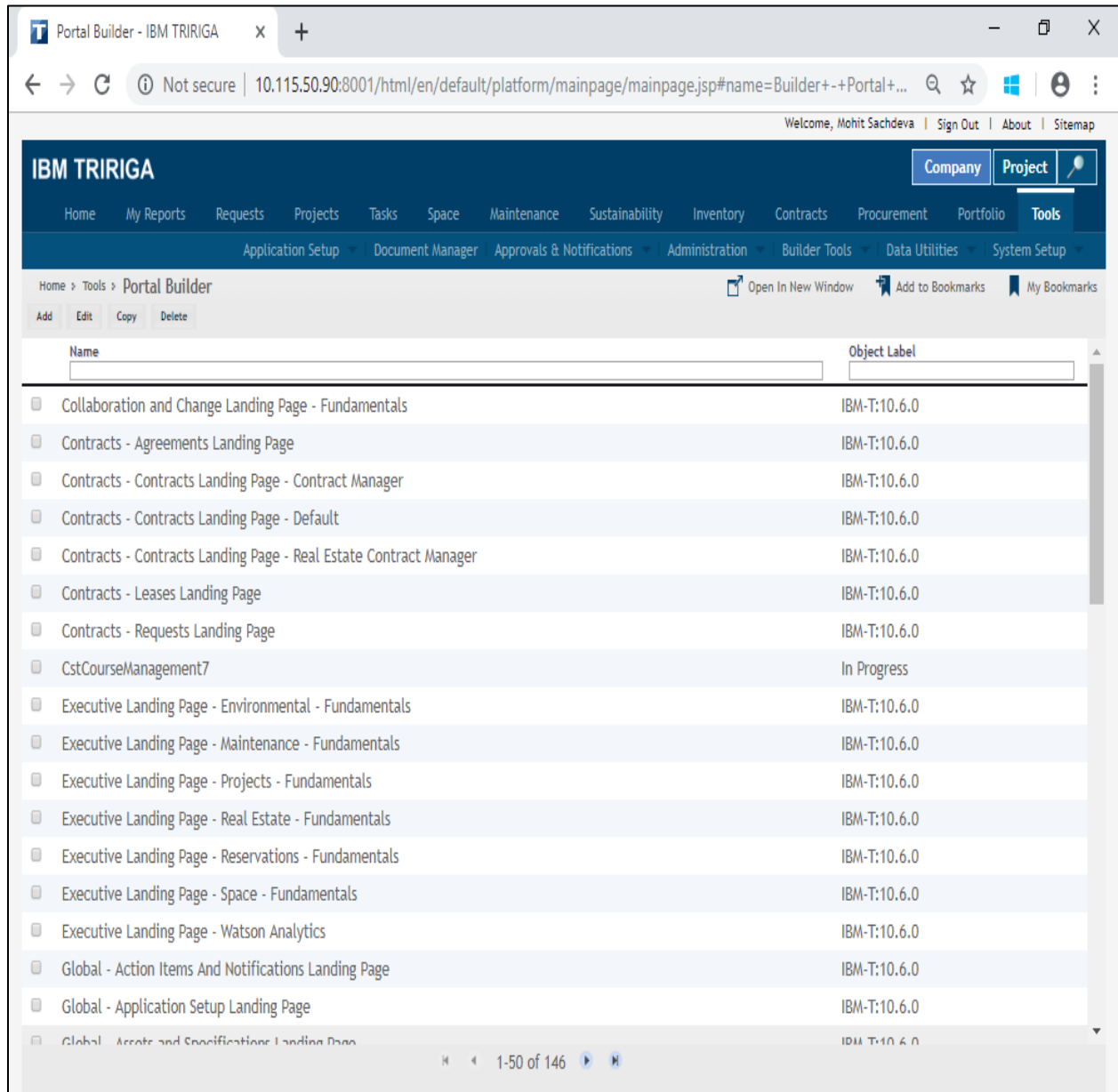


Fig.1.14 Portal Builder Tool

- The entry is the focal sorting out component of an application.
- Portal sections are the building blocks of portals.

The IBM Tririga passage is the central dealing with segment of the application UI. You can get to all limits in the thing through this interface. A door is the greeting page for an application. A section that is the target of a menu thing (other than Home) is moreover called a point of entry

When someone signs in to the IBM Tririga Application Platform, they see their home door. A customer can return to their home entryway at whatever point by tapping the home menu thing. The home passage and the menu for each customer is set in the My Profile record that describes their customer ID. For certain people, this is resolved to the Profile tab of their Employee record.

Passageway portions are the structure upsets from which sections are fabricated. Passage fragments are appeared as embodied areas inside a portal. IBM Tririga ships with a few entryway fragments. These standard passage zones join system parts that give data and course help, and moreover action things, alerts, questions, including a record, and audit a record. The slide shows a passageway that contains four energetic associations section fragments. You make passageways and entryway sections by using the Portal Builder.

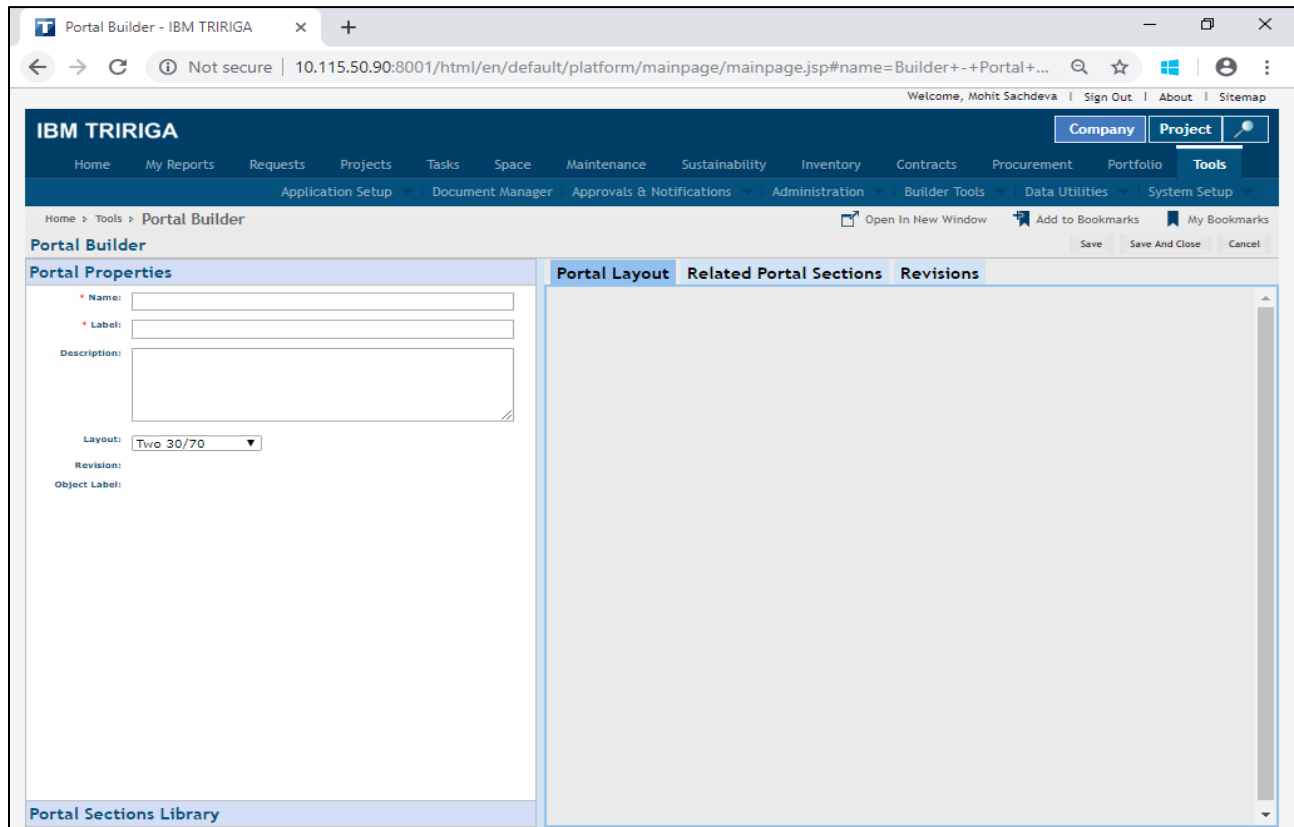


Fig.1.15 Portal Properties Panel

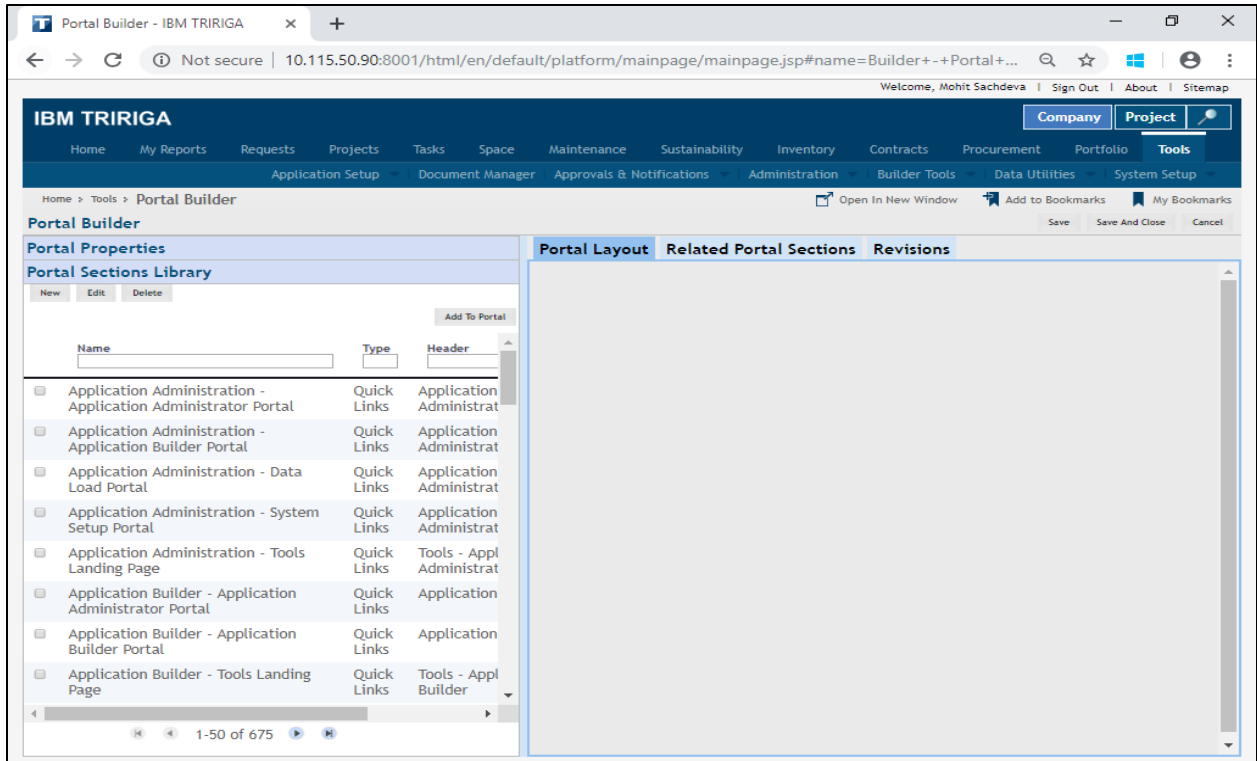


Fig.1.16 Portal Sections Library

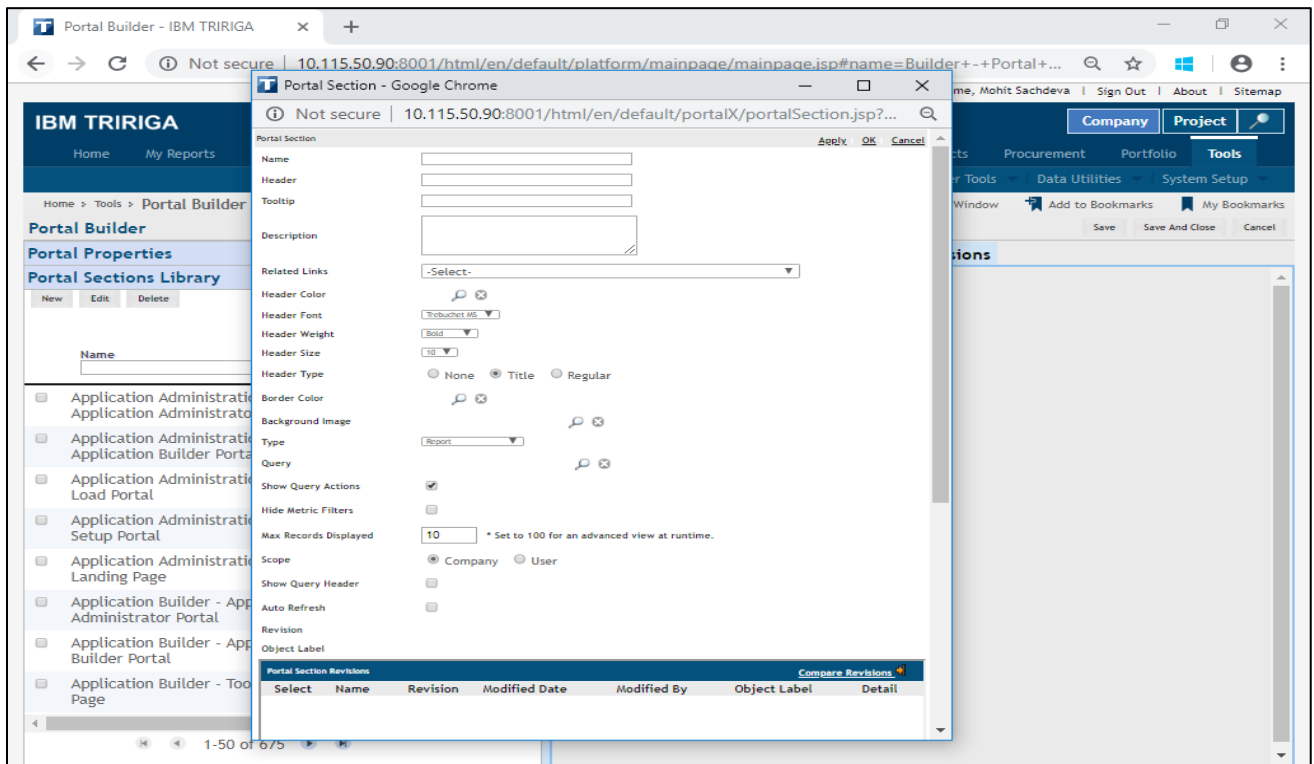


Fig.1.17 Creating a portal section

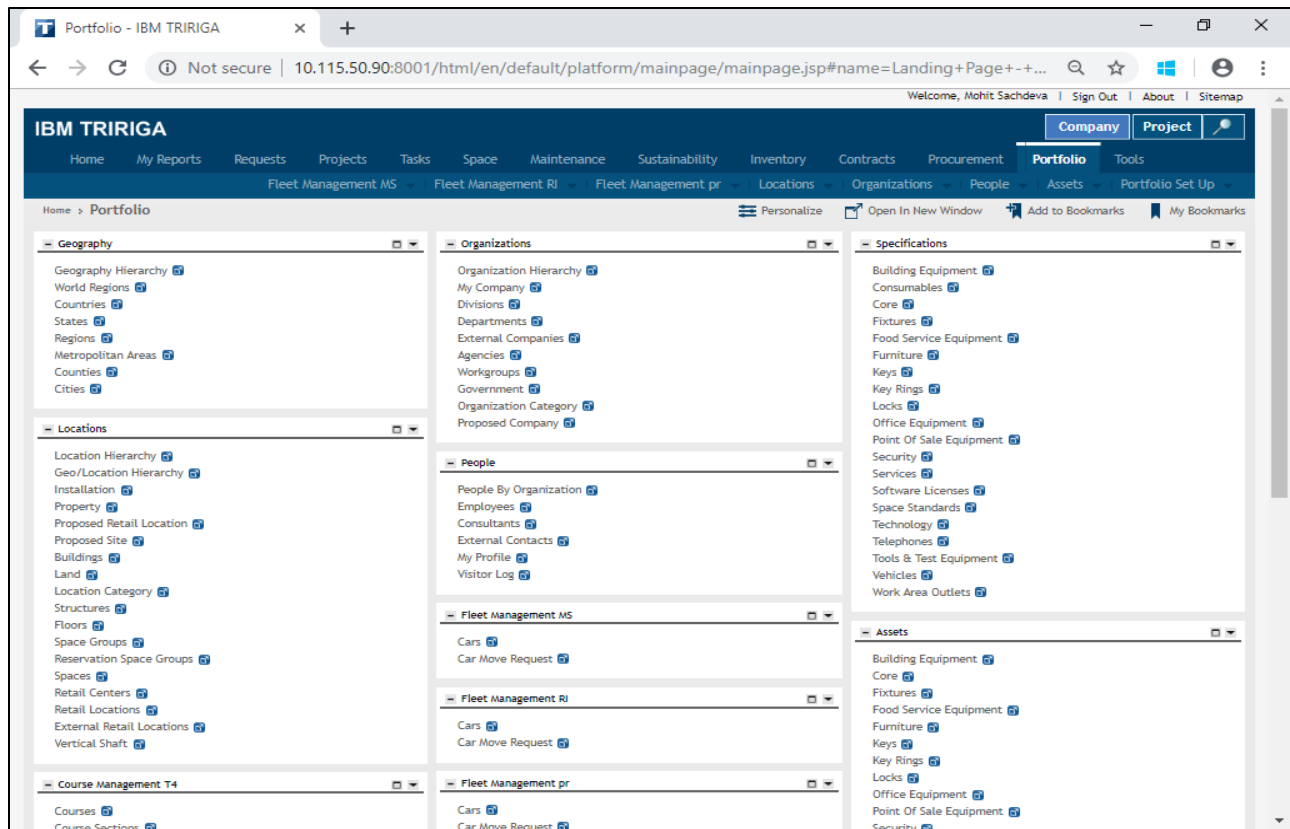


Fig.1.18 Portals and portal sections

1.2.5 Queries and Reports

The IBM Tririga Application Platform has facilities to produce a variety of reports or queries. The mechanisms for producing reports can be divided into two categories: internal and external. There are two internal report generating mechanisms, each producing a different kind of report. One internal mechanism is for producing what is called a form report. A form report presents the contents of a single record. A form report may also include the contents of a record's multi record smart sections or query sections.

The screenshot shows the IBM TRIRIGA Report Manager interface. The browser address bar indicates the URL: 10.115.50.90:8001/html/en/default/platform/mainpage/mainpage.jsp#name=Builder+-+Report... The page header includes the IBM TRIRIGA logo and navigation tabs for Company and Project. The main navigation menu includes Home, My Reports, Requests, Projects, Tasks, Space, Maintenance, Sustainability, Inventory, Contracts, Procurement, Portfolio, and Tools. The Tools menu is expanded, showing options like Application Setup, Document Manager, Approvals & Notifications, Administration, Builder Tools, Data Utilities, and System Setup. The Report Manager page displays a list of reports with columns for Title, Name, Tag, Module, Business Object, Form, Display Type, and Object Label. The reports are filtered to show 9 total found.

Title	Name	Tag	Module	Business Object	Form	Display Type	Object Label
Contains	Contains	Contains	cstFleetManagementMS	Contains	Contains	-All-	
Car Move Request	cstCarMoveRequestMS - Master/Detail query		cstFleetManagementMS	Car Move Request	Car Move Request MS	Report	In Progress
Car Move Request - Draft	cstCarMoveRequestMS - triDraft - Editable		cstFleetManagementMS	Car Move Request	Car Move Request MS	Report	In Progress
Car Move Request - Retired	cstCarMoveRequestMS - triRetired - Editable		cstFleetManagementMS	Car Move Request	Car Move Request MS	Report	In Progress
Cars	cstCar - Master/Detail query MS		cstFleetManagementMS	Car	Car	Query	In Progress
Cars - Draft	cstCar - triDraft - Editable		cstFleetManagementMS	Car	Car	Query	In Progress
Cars - Retired	cstCar - triRetired - Editable		cstFleetManagementMS	Car	Car	Query	In Progress
Cars by Make	cstCar - Graph - Cars by Make MS		cstFleetManagementMS	Car	Car	Chart	In Progress
Cars by Make bar	cstCar - Bar Graph - Cars by Make MS		cstFleetManagementMS	Car	Car	Chart	In Progress
Customized Query	cstCarMoveRequestMS - Customized Query		cstFleetManagementMS	Car	Car	Query	In Progress

Fig. 1.19 Report Manager

Reports created by the Report Manager can be incorporated into structures that are part of a UI. Reports that are created essentially for use inside a client interface are generally called inquiries. The incorporation of questions in a UI is under the control of the Form Builder device.

On the off chance that a report or inquiry is designed to permit it, you can alter the qualities you see in a report legitimately in the report. This element enables you to alter the qualities in any number of records all in the meantime.

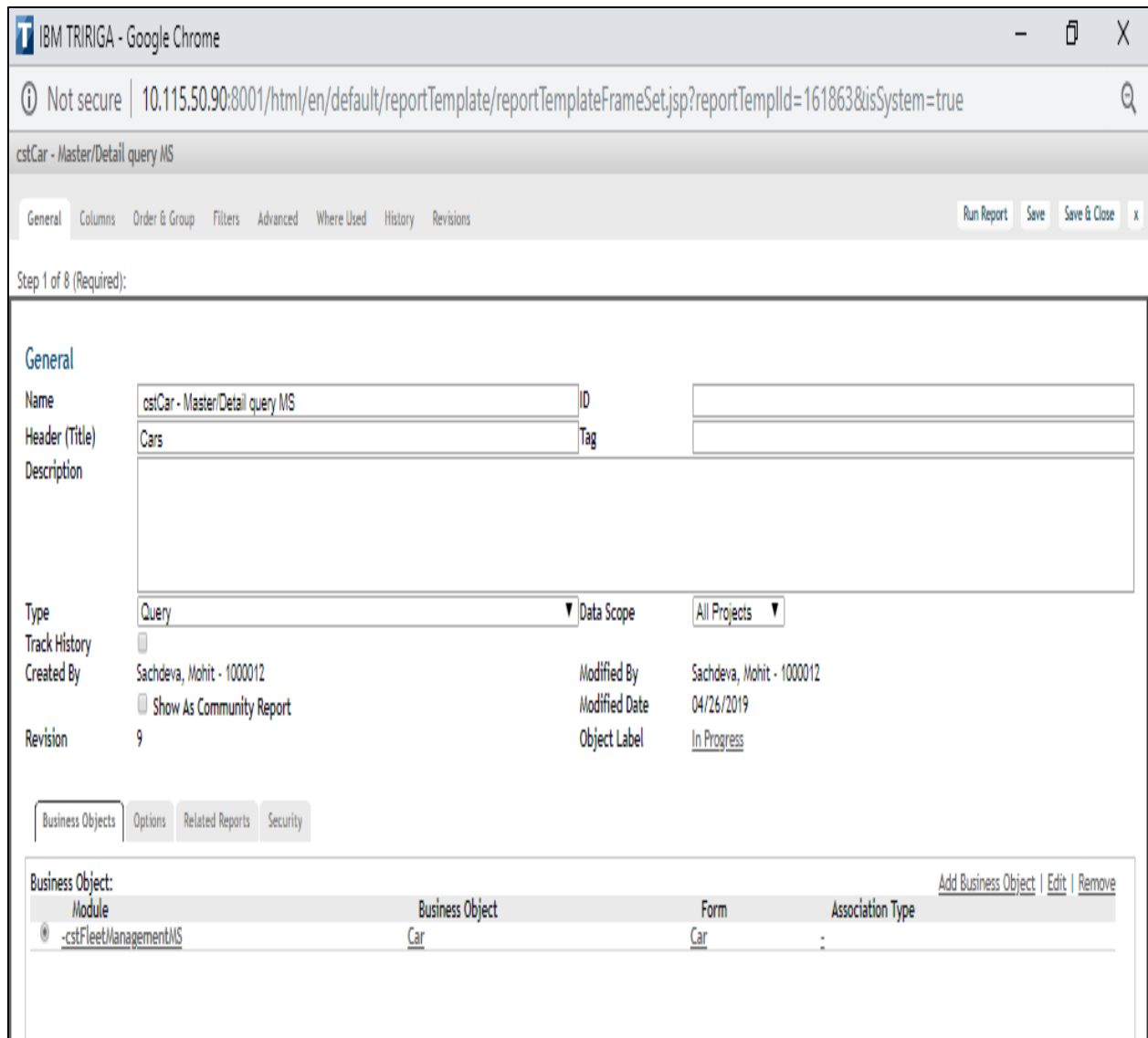


Fig.1.20 Report Manager – General tab

The Columns tab defines which fields to use in the report. The information in the Columns tab is organized into three sections: Business Object; Columns; and Display Columns.

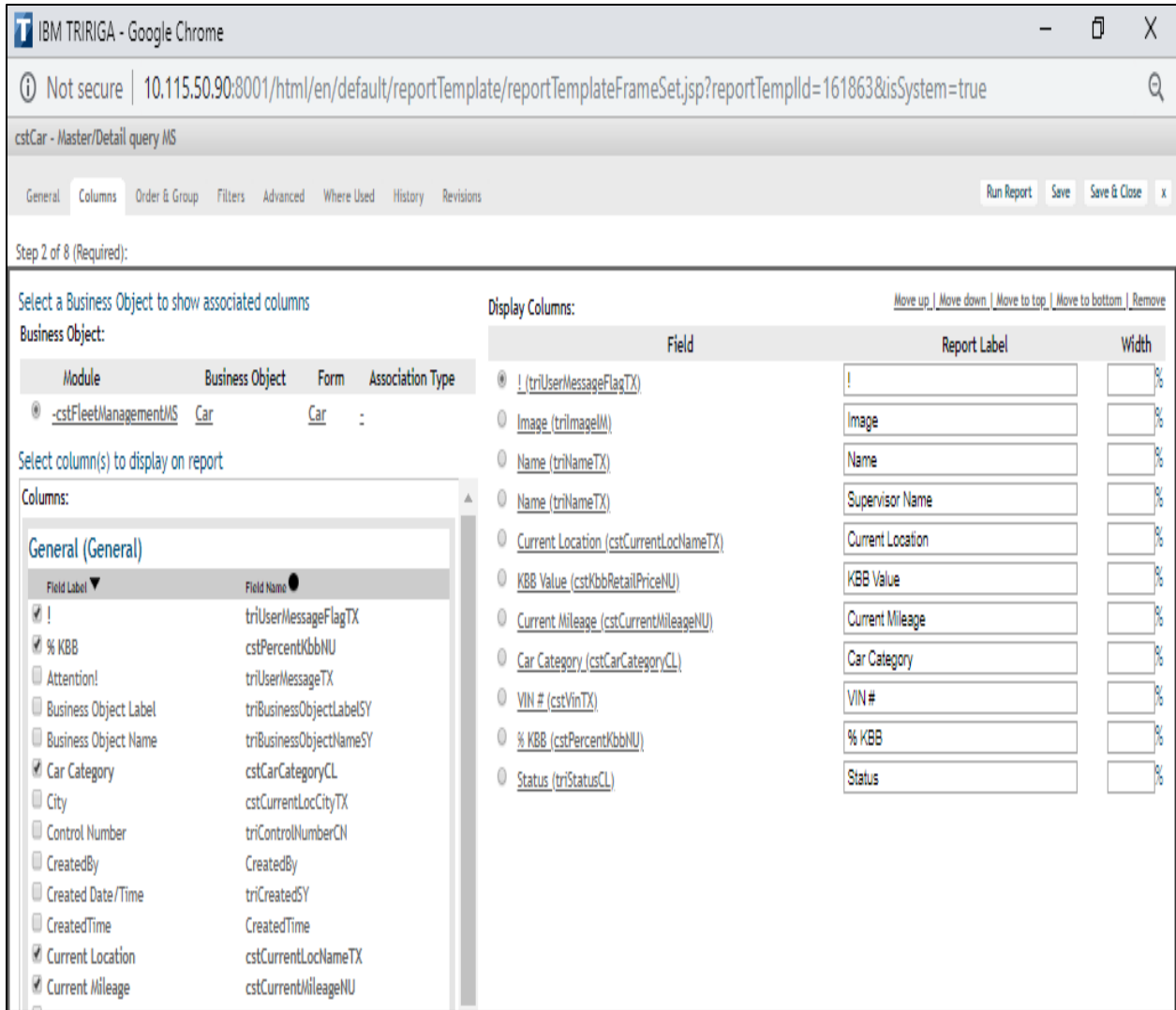


Fig.1.21 Report Manager – Columns tab

The Order & Group tab is where you define the grouping of values on the report, and also the way that the results are sorted. There are two sections on this tab: Group By and Order By. Each section has a list on the left and a list on the right. The lists on the left contain the fields that are selected on the Columns tab. The lists on the right are the fields that are selected for this property and the order that they are in.

Select a field from a list on the left and click a right-facing arrow to move the field to the list on the right. Use the up and down arrows to change the order of the fields, if needed. Select a field on the right and click the arrow that faces left to remove the field from the list on the right.

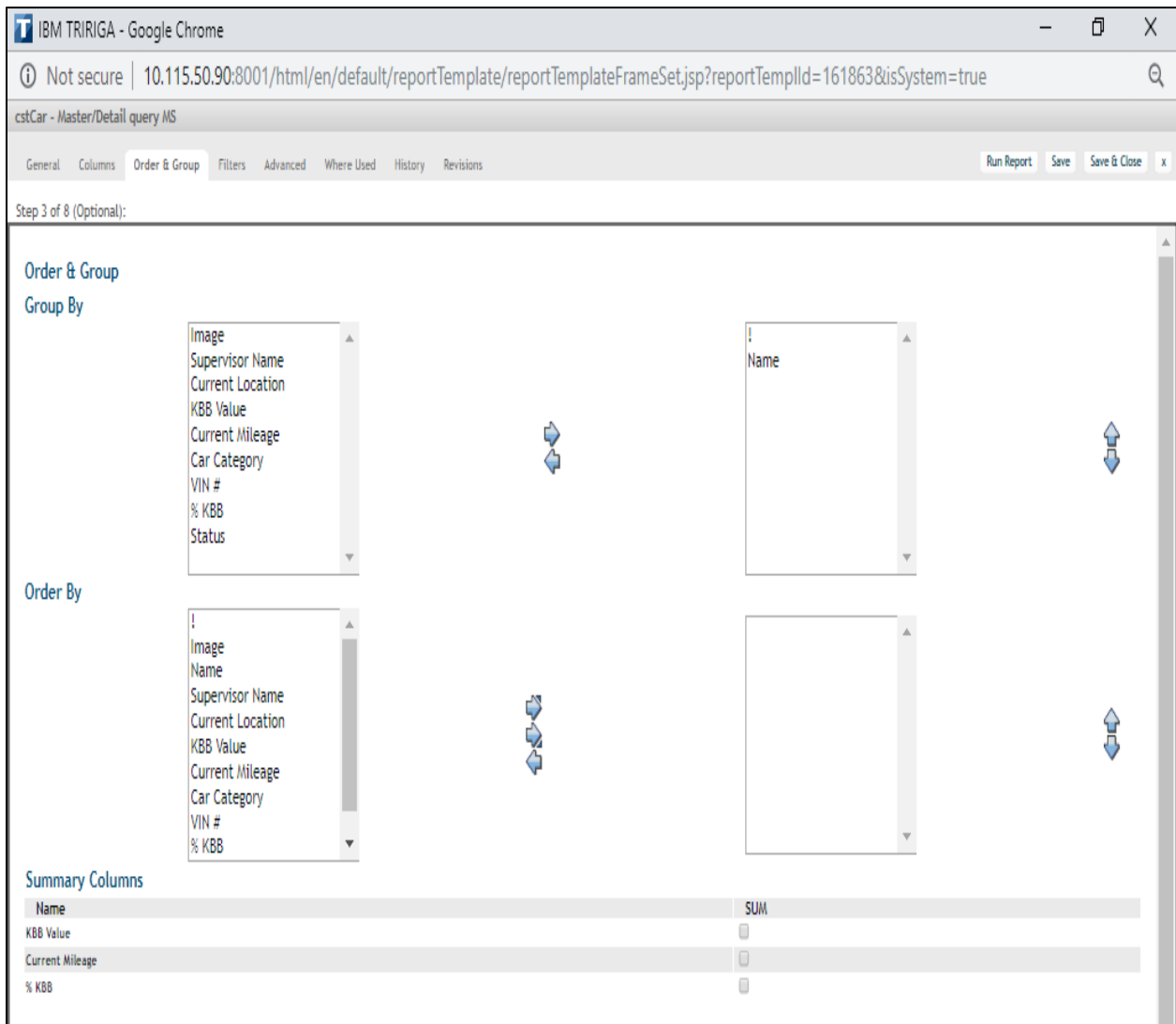


Fig.1.22 Report Manager – Order & Group tab

The Filters tab uses fields, operators, and values to focus the results to display. There are two types of filters:

- **System filters:** These filters limit the results that are returned by the query. Only records with fields that contain values that meet the specified criteria are included. Records that are excluded by system filters are not available to the user. System filters are not visible to the user.

- User filters: Also called runtime filters, these filters do not affect the query results. These filters help the user sift through the records that are returned by the query. Records that are excluded by user filters can be restored to the result list by clearing the filters.

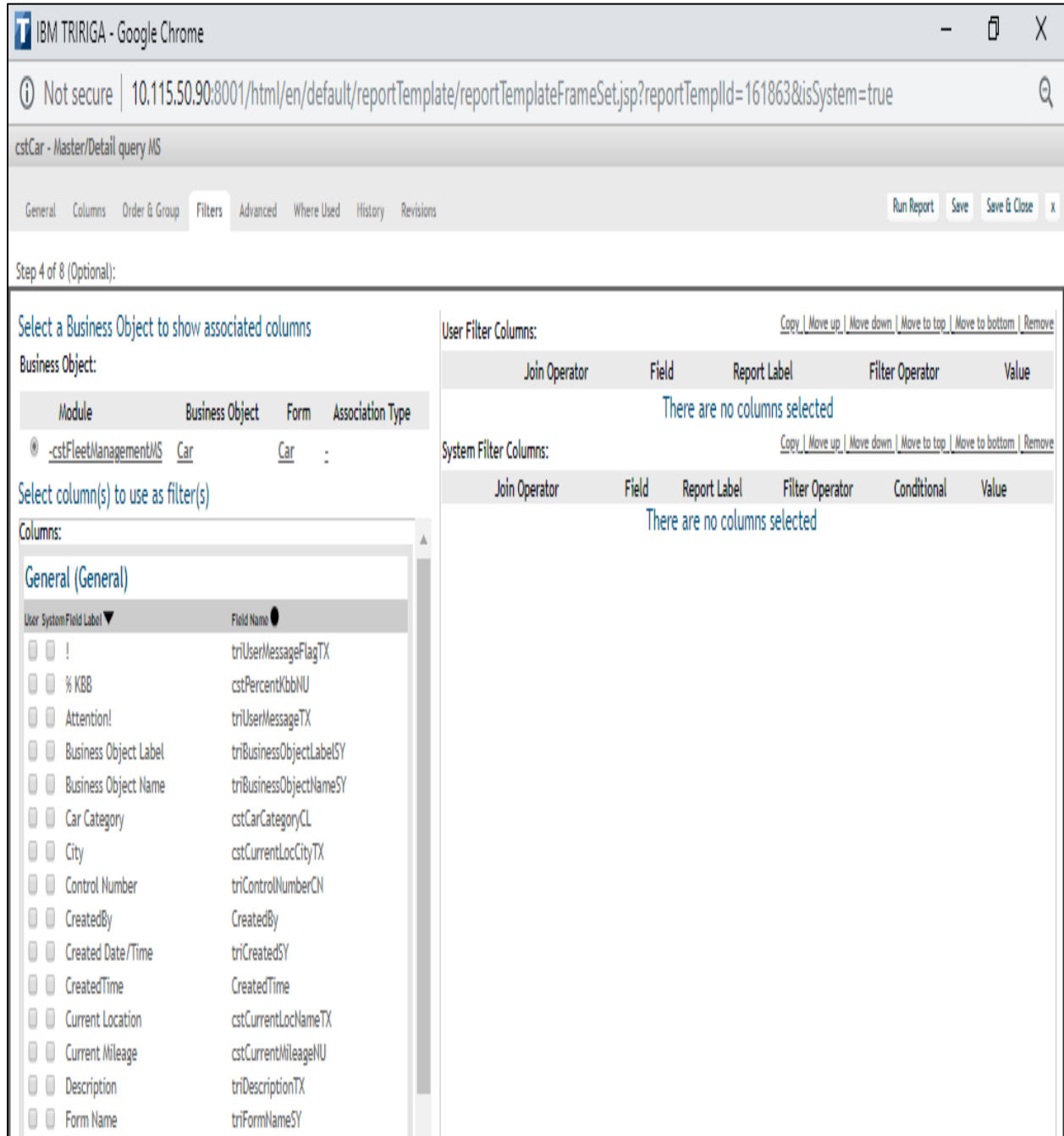


Fig.1.23 Report Manager – Filters tab

1.2.6 Workflows

A work process is an arrangement of errands for the stage to perform naturally.

We can utilize work processes to add business rationale to applications.

We can utilize work processes for the accompanying errands:

- Validate user input.
- Set the value of a field.
- Vary the appearance of a record.
- Create and manipulate records.

A workflow is a predefined grouping of undertakings that can be performed physically or consequently. You utilize a work process to determine the errands that you need an application to perform.

We can add business rationale to your applications by making a work process. We can likewise make work processes to characterize any business procedure that is related with the framework or the business protests in the framework. Numerous predefined work processes are conveyed with the Tririga applications.

The screenshot displays the IBM TRIRIGA Workflow Builder tool. The top navigation bar includes 'Home', 'My Reports', 'Requests', 'Projects', 'Tasks', 'Space', 'Maintenance', 'Sustainability', 'Inventory', 'Contracts', 'Procurement', 'Portfolio', and 'Tools'. The 'Tools' menu is expanded, showing 'Application Setup', 'Document Manager', 'Approvals & Notifications', 'Administration', 'Builder Tools', 'Data Utilities', and 'System Setup'. The main content area shows the 'Workflow Builder' tool with a table of workflow instances.

Select	Name	Revision	Object	Action	Status	Modified Date	Object Label
<input checked="" type="radio"/>	A New Workflow	0	-Any-		Revision In Progress	04/26/2019	ObjectLabelPending
<input type="radio"/>	A New Workflow	0	-Any-		Revision In Progress	04/26/2019	ObjectLabelPending
<input type="radio"/>	A New Workflow	0	-Any-		Revision In Progress	04/26/2019	ObjectLabelPending
<input type="radio"/>	cstCar - Synchronous - Activate validation	0	cstCarMS		Published	04/12/2019	In Progress
<input type="radio"/>	cstCar - Synchronous - Update Description on mileage change	0	cstCarMS		Published	04/15/2019	In Progress
<input type="radio"/>	cstCar - Synchronous - OnChange of Current Location	0	cstCarMS		Published	04/12/2019	In Progress
<input type="radio"/>	cstCarMoveRequest - Synchronous - Calculate total cost	0	cstCarMoveRequestMS		Published	04/16/2019	In Progress
<input type="radio"/>	cstCarMoveRequest - Synchronous - Display car supervisor	0	cstCarMoveRequestMS		Published	04/15/2019	In Progress
<input type="radio"/>	cstCarMoveRequest - Synchronous - Hide Cost section	0	cstCarMoveRequestMS		Published	04/15/2019	In Progress
<input type="radio"/>	cstCarMoveRequest - Synchronous - Show Cost section	0	cstCarMoveRequestMS		Published	04/15/2019	In Progress
<input type="radio"/>	cstCarMoveRequestMS - Synchronous - Add Approval People	15	cstCarMoveRequestMS		Published	04/24/2019	In Progress
<input type="radio"/>	cstCarMoveRequestMS - Synchronous - Add Contact Role People	0	cstCarMoveRequestMS		Published	04/26/2019	In Progress
<input type="radio"/>	cstCarMoveRequestMS - Synchronous - Update Intermediate Locators	1	cstCarMoveRequestMS		Published	04/24/2019	In Progress
<input type="radio"/>	cstCarMoveRequestMS - triActive - Submit for Approval and Dependant Record Update	0	cstCarMoveRequestMS	triActivate	Published	04/24/2019	In Progress
<input type="radio"/>	cstFleetManagement - WF WIZARD CANCEL - Hide attention section	0	-Any-	WF WIZARD CANCEL	Published	04/12/2019	In Progress

Fig.1.24 Workflow Builder tool

Two types of workflows:

Synchronous workflows

- You are typically the one who triggers the workflow.
It runs immediately.
- The workflow must complete before you can perform other tasks.

Asynchronous workflows

- They are triggered by an event.
It runs soon after that.
- You can perform other tasks while the workflow is running.

One of the key properties of a workflow is whether it is synchronous or asynchronous. If a workflow is synchronous, it generally means that the workflow is started in response to something that a user did in the user interface. The workflow begins running immediately, and control is not returned to the user until the workflow completes.

If a workflow is asynchronous, it means that the workflow is started in response to an event that occurred in the system. The workflow is added to a queue and waits to be run based on its position in the queue.

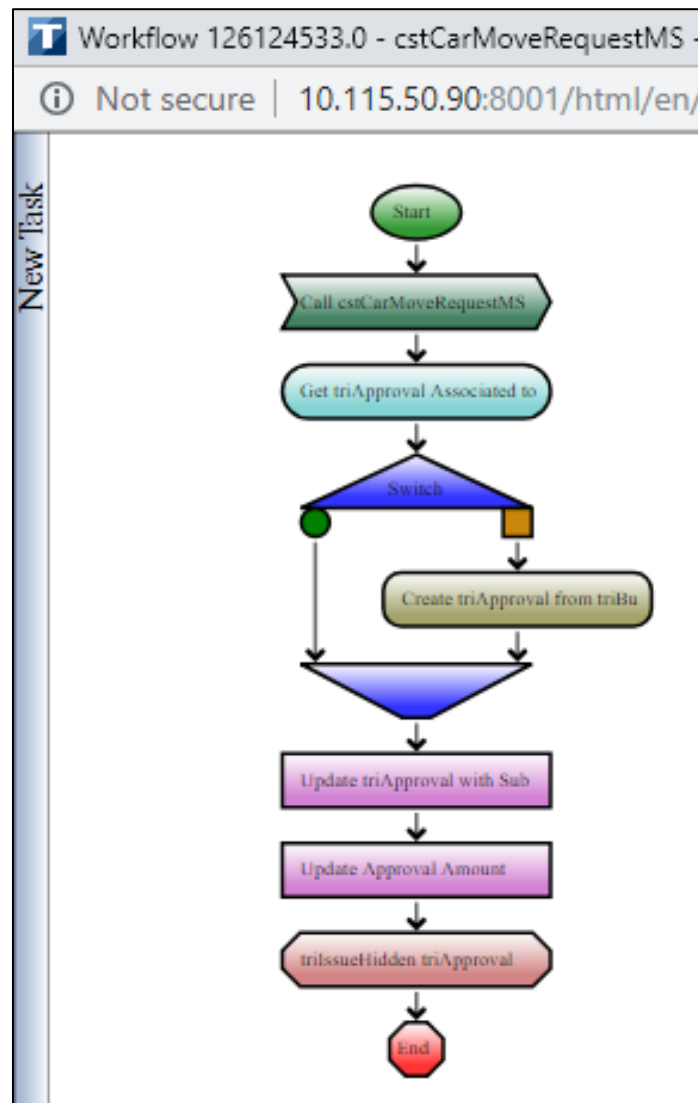


Fig.1.25 Workflow Editor

1.2.7 State Transition Family

The state transition family identifies the states that exist in the lifecycle of a business object and the means of moving from one state to another. All records that are created from a business object follow its lifecycle.

A state family diagram is a representation of the state transition family. States are shown in diagrams as vertical lines with yellow boxes on top of them. Transitions are shown in a diagram as arrows or flags. The state that a transition originates from is indicated by a circular dot.

The movement of a record in the state family is strictly controlled by the platform. Nothing, not even a workflow, can move a record from state to state in a way that is inconsistent with the state family. In other words, a record can only be moved directly from one state to another if there is a transition in the state family from the first state to the second state.

- A state identifies where a record is at in its lifecycle.
- A transition is a way to get from one state to another.
- A state transition family is a list of states and transitions that define the lifecycle of a business object.

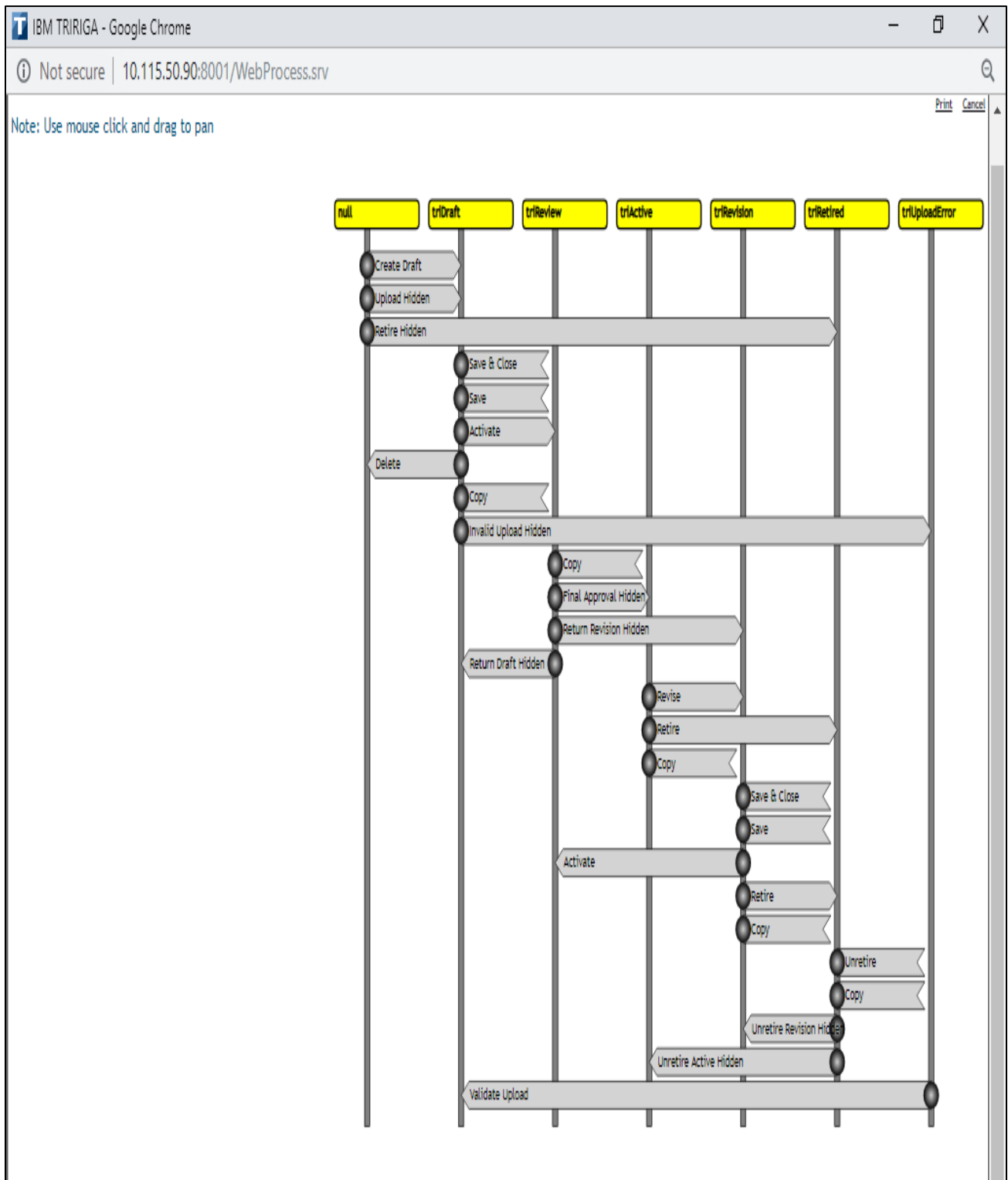


Fig.1.26 State Transition Family

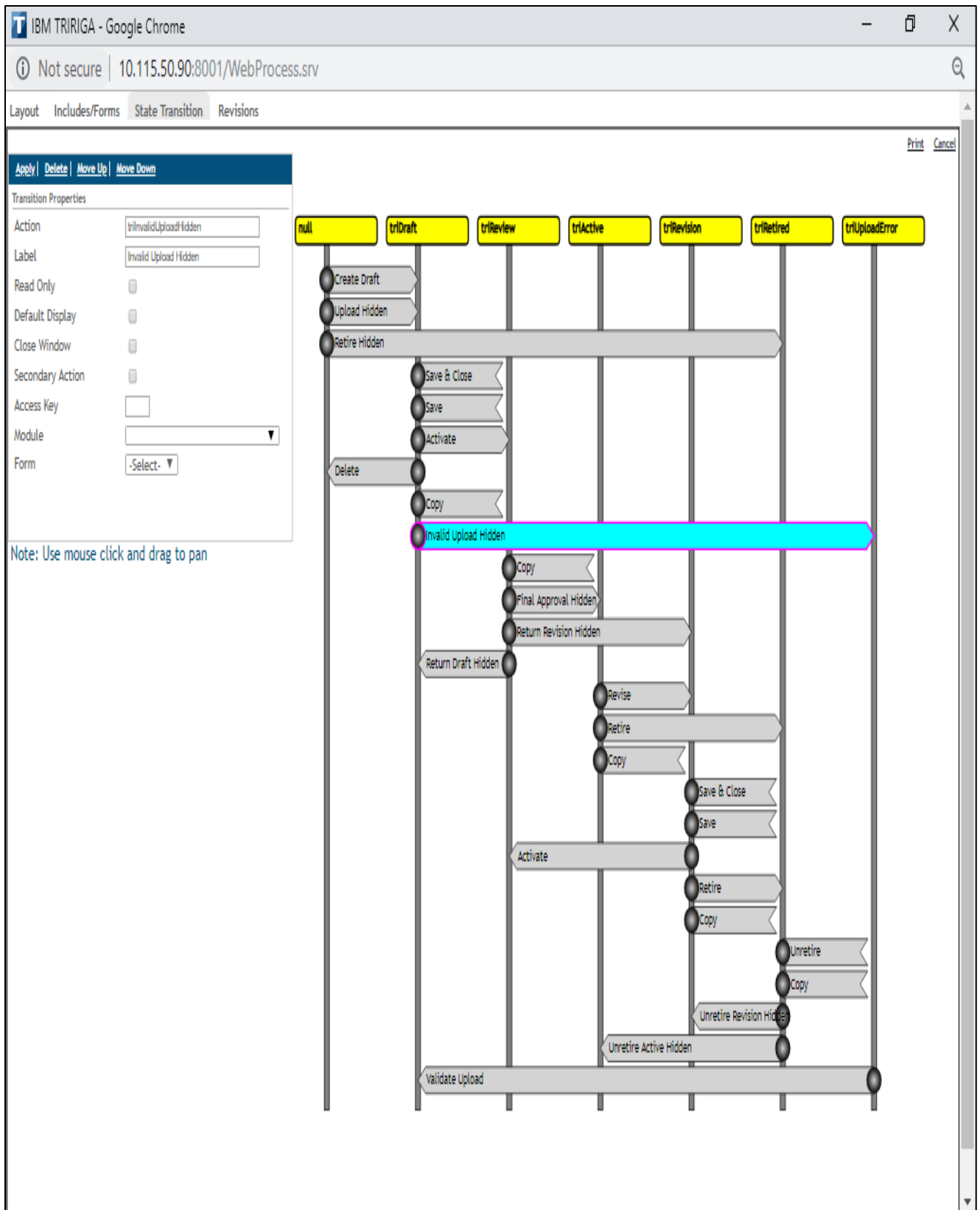


Fig.1.27 State Transition Editor Interface

Chapter 2

Application - Car Fleet Management

2.1 Business Scenario

We are utilized by an organization that rents autos at different airplane terminals. The organization utilizes IBM Tririga and requirements you to make a custom application to follow the autos in their stock.

The accompanying things should be followed:

- Year, make, model, and identification number of the car.
- Locations, including current location, primary location, and authorized locations.
- Supervisor of the car.

Individuals can lease vehicles at one airplane terminal and return them to an alternate air terminal. This organization arrangement can result in a lopsidedness of vehicles at one area and a need to exchange autos between airplane terminals. The application must give a system to exchanging vehicles among areas, and it must probably follow the related expenses.

2.1.1 The Data

With this application, we must be able to create and manage the following types of records:

- **Car:** Depicts details about a car.
- **Property:** Depicts and provide information about places where a car is or can be.
- **Supervisor:** Information about the Person who is responsible for a car.
- **Requester:** Details and information about Person who requests the movement of a car.
- **Move Request:** Details about the movement of a car.

2.1.2 Association Diagram

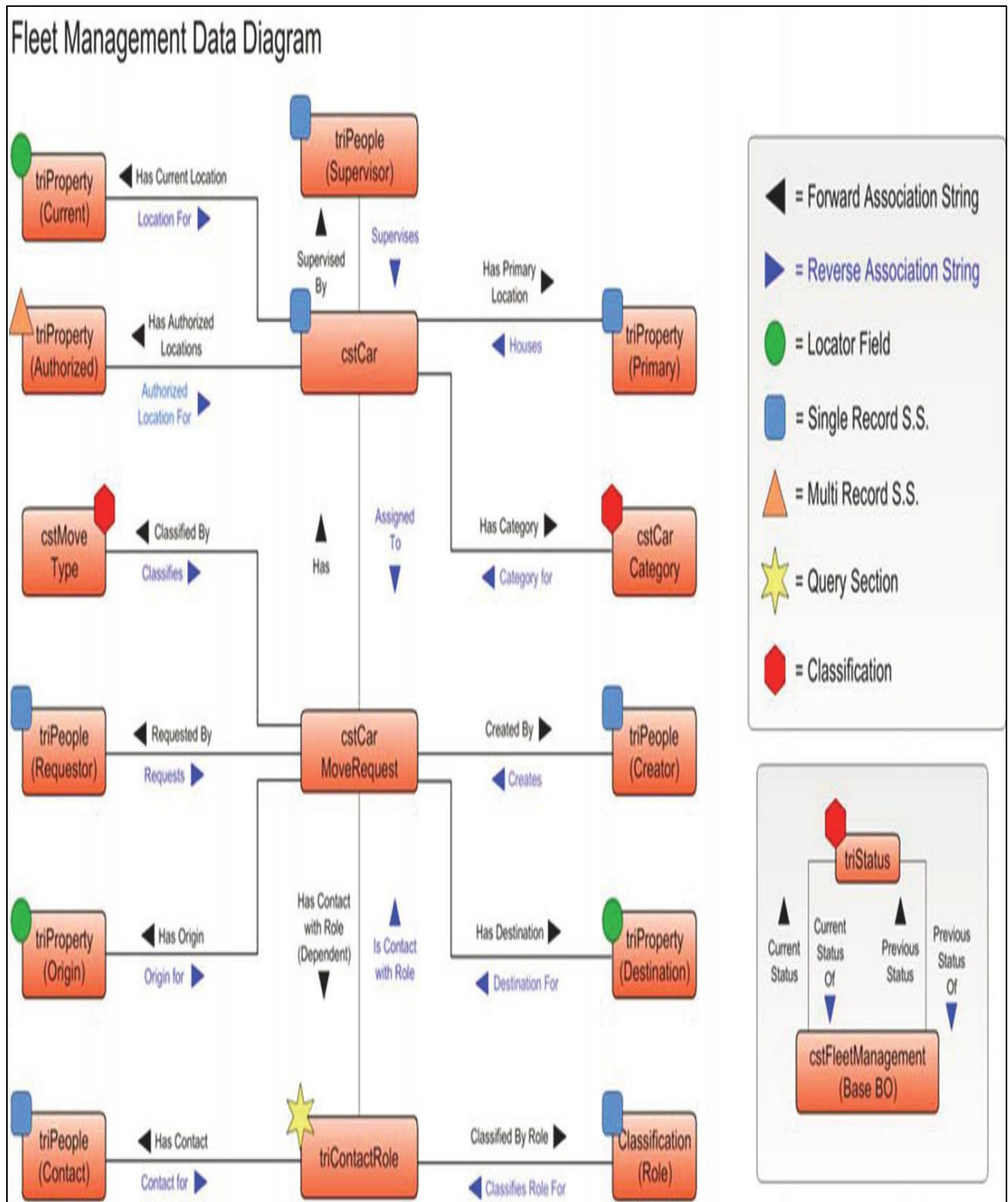


Fig.2.1 Association Diagram

Applications in IBM Tririga have relationship between the different records that it utilizes, as appeared in the chart. These affiliations must be executed as a component of the application.

We should make two orders for this application:

- Car has a Move Type
- Every car has a Category

2.2 The Admin

The admin has all the rights.

Admin has all the access to everything.

2.2.1 Admin Login Page



Fig.2.2 Admin Login Page

Available Cars:

The record of the cars that are being used earlier.

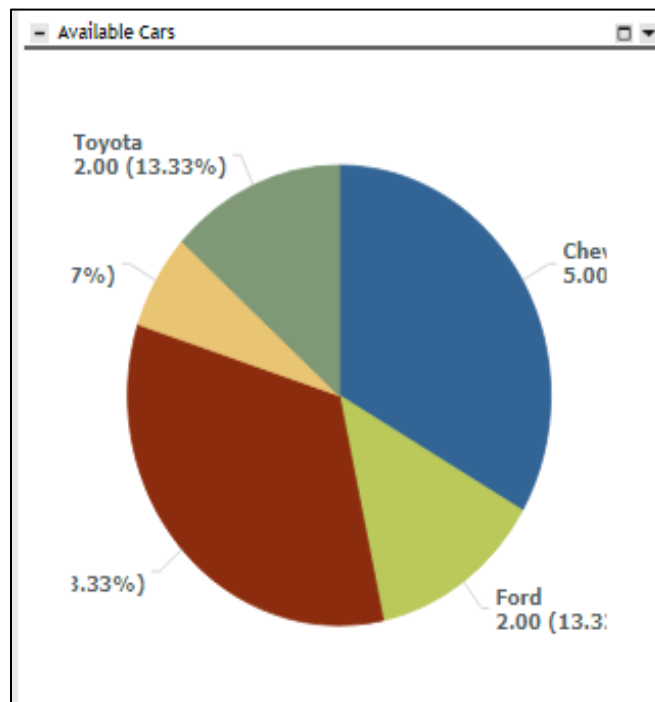


Fig.2.3 Cars Available

Active Cars:

Cars that are being used or completing a trip.

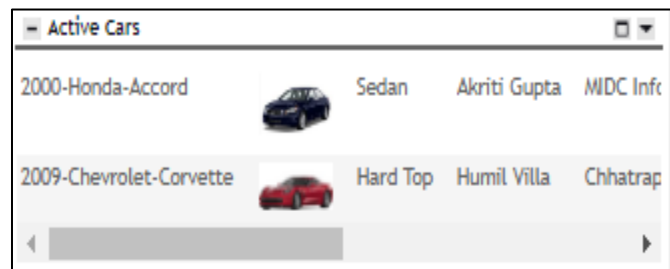
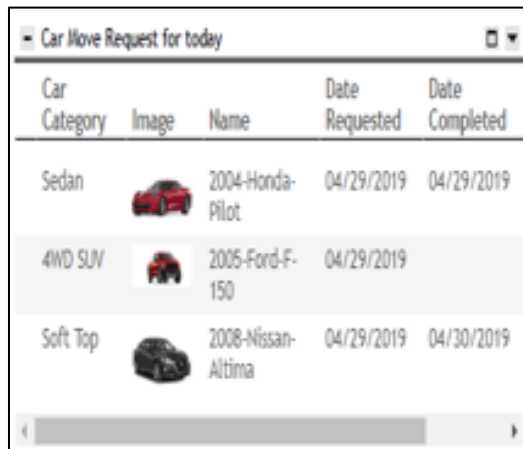


Fig.2.4 Cars that are currently in use

Car Move Request for Today:

Cars requested in today's date.






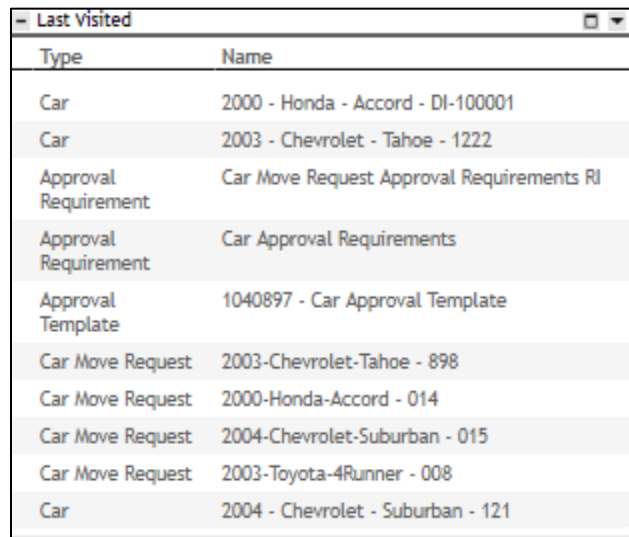
Car Category	Image	Name	Date Requested	Date Completed
Sedan		2004-Honda-Pilot	04/29/2019	04/29/2019
4WD SUV		2005-Ford-F-150	04/29/2019	
Soft Top		2008-Nissan-Altima	04/29/2019	04/30/2019

Fig.2.5 Car Move Requests for Today

Reminders:

All type of notifications and reminders come over here.



Type	Name
Car	2000 - Honda - Accord - DI-100001
Car	2003 - Chevrolet - Tahoe - 1222
Approval Requirement	Car Move Request Approval Requirements RI
Approval Requirement	Car Approval Requirements
Approval Template	1040897 - Car Approval Template
Car Move Request	2003-Chevrolet-Tahoe - 898
Car Move Request	2000-Honda-Accord - 014
Car Move Request	2004-Chevrolet-Suburban - 015
Car Move Request	2003-Toyota-4Runner - 008
Car	2004 - Chevrolet - Suburban - 121

Fig.2.6 Reminders & Notifications

2.2.2 Property Creation

In this, we create records of different airports.

The screenshot displays the IBM TRIRIGA web application interface. At the top, there is a navigation bar with the IBM TRIRIGA logo and a menu including Home, My Reports, Requests, Projects, Tasks, Space, Maintenance, Sustainability, Inventory, Contracts, Procurement, Portfolio, and Tools. The 'Portfolio' menu is currently selected. Below the navigation bar, there is a breadcrumb trail: Home > Portfolio > Property. The main content area shows a table of property records. The table has columns for ID, Property, City, State/Province, Country, Tenure, Property Type, and Status. There are 13 records listed, including Bald Eagle Airport Authority, Barcelona Airport, Chhatrapati Shivaji Terminus, DENVER INTERNATIONAL AIRPORT, Frankfurt Airport, Hyderabad Deccan Railway Station, Indira Gandhi International Airport, Kempegowda International Airport, MADRID BARAJAS AIRPORT, MDC Infotech Park, Pune International Airport, Shrimant Bajirao Peshwe Terminus, and Zurich Airport. The interface also includes a search bar, a 'Delete' button, a 'Form' button, and a 'Show: 50' dropdown menu.

ID	Property	City	State/Province	Country	Tenure	Property Type	Status
1000000	Bald Eagle Airport Authority					Property	Active
1000010	Barcelona Airport	Barcelona	Barcelona	Spain		Property	Active
1000002	Chhatrapati Shivaji Terminus	Mumbai	Maharashtra	India		Property	Revision In Progress
1000005	DENVER INTERNATIONAL AIRPORT	DENVER	COLARADO	U.S.A		Property	Active
1000003	Frankfurt Airport	MUNICH	MUNICH	GERMANY		Property	Active
1000009	Hyderabad Deccan Railway Station	Hyderabad	Telangana	India		Property	Active
1000001	Indira Gandhi International Airport	New Delhi	New Delhi	India		Property	Active
1000006	Kempegowda International Airport Bengaluru	Bengaluru	Karnataka	India		Property	Active
1000008	MADRID BARAJAS AIRPORT	BARAJAS	MADRID	SPAIN		Property	Active
1000012	MDC Infotech Park	Pune	Maharashtra	India		Property	Active
1000004	Pune International Airport	Pune	Maharashtra	India		Property	Active
1000011	Shrimant Bajirao Peshwe Terminus	Pune	Maharashtra	India		Property	Active
1000007	Zurich Airport	Zurich	Zurich	Switzerland		Property	Active

Fig.2.7 Records of Airports

Property: Zurich Airport

General Contact Details Graphic Area Measurements Assessment Maintenance Notifications Notes & Documents System GIS Workflow Instance Includes Reports Association

(Required): General Information for this Property.

General

ID 1000007 Status Active Image

Name Zurich Airport

Description

Hierarchy Path \Locations\Airports\Zurich Airport

Details

Bar Code Entry 1000007 Control Number 1000007

Legal Name

Common Name

Parking Space (Open) 0 Parking Space (Covered) 0

Tenure

Property Class Primary Use

Zoning Jurisdiction

Accounting Cost Center Time Zone

Units

Currency US Dollars Area Units square-feet Length Units inches

Primary Address **Location Graphic**

Address Zurich, Switzerland No Graphic Available

Zip/Postal Code 8058

Geography \Geography\Europe\Switzerland

City Zurich

State/Province Zurich Country Switzerland

GIS Latitude 0 GIS Longitude 0

Country Code ZRH

Primary Phone Numbers

Main Phone Main Fax

Geography

Longitude Latitude

Fig.2.8 Record Information for Zurich Airport

These records may act as either current or primary location (destination). Cars will be moving or completing a trip from one airport to another after the approval.

Primary Address

Address Zurich, Switzerland

Zip/Postal Code 8058

Geography \Geography\Europe\Switzerland

City Zurich

State/Province Zurich Country Switzerland

GIS Latitude 0 GIS Longitude 0

Country Code ZRH

Fig.2.9 Primary address of an Airport

2.2.3 Vice President Creation

The purpose of Vice President is to provide the approval of the car.

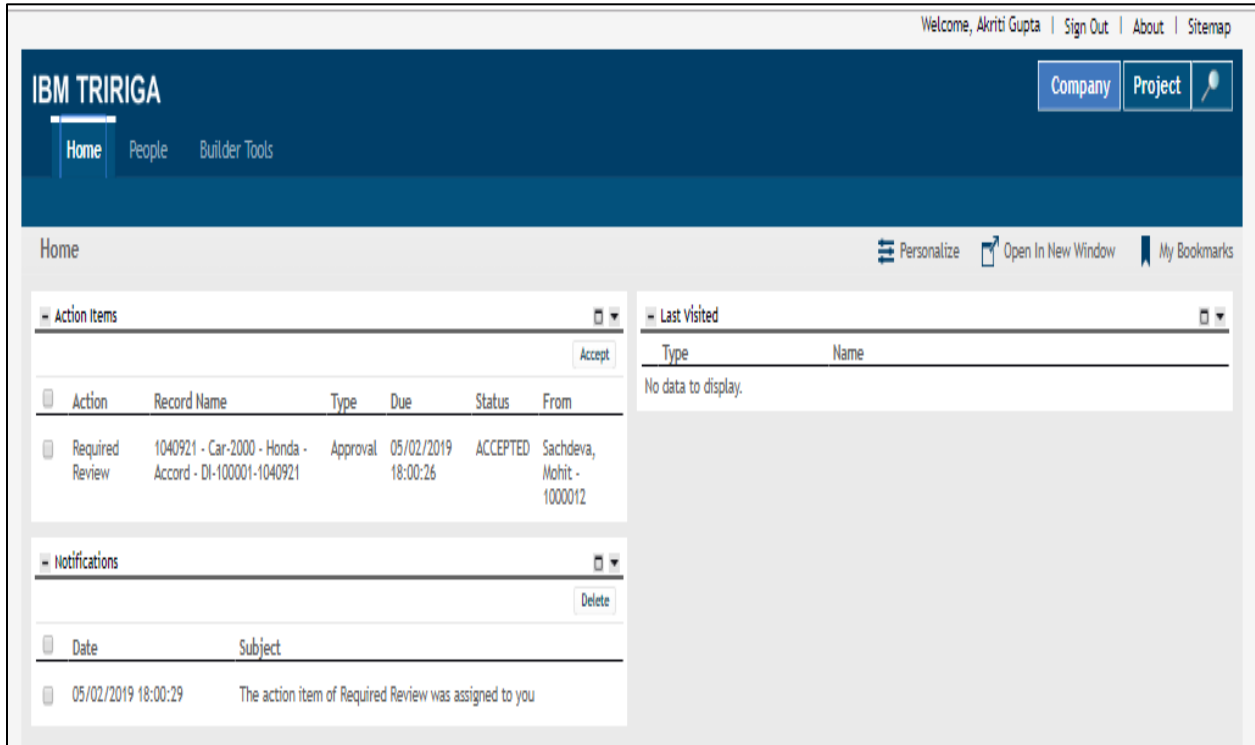


Fig.2.10 Vice President Login page

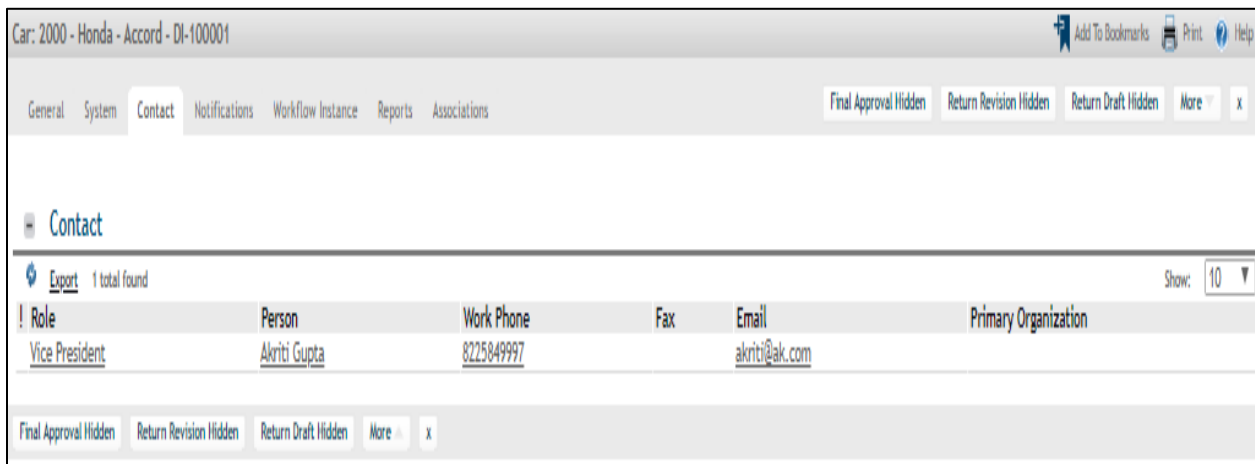


Fig.2.11 Contact tab of Vice President

Car: 2000 - Honda - Accord - DI-100001 Add To Bookmarks Print Help

General System Contact **Notifications** Workflow Instance Reports Associations Final Approval Hidden Return Revision Hidden Return Draft Hidden More x

(Optional): Approval Process

Approvers

[Export](#) 1 total found Show: 10 ▼

#	Person	Role	Use Roles From	Review Type
0				

Approval Review

[Export](#) 2 total found Show: 10 ▼

Approval Status	#	Person	Review Status	Sent	Completed	Comment	Resolved Review Type
Review In Progress	1	Akriti Gupta	Not TRIRIGA User	04/30/2019 14:00:05	04/30/2019 14:00:05		Approval Rule
Review In Progress	2	Akriti Gupta	Approved	05/02/2019 18:00:26	05/02/2019 18:02:32	The Request is approved.	Approval Rule

Final Approval Hidden Return Revision Hidden Return Draft Hidden More x

Fig.2.12 Notification tab of Vice President

2.2.4 Supervisor Creation

We made the record of the supervisors in employee navigation item.

The purpose of supervisor is to approve the Car Move Request.

Related Reports: Employees

Export 42 total found Apply Filters Clear Filters Show: 50

Name	ID	Organization	Building	Floor	Space	Work Phone	eMail	Status
Akriti Gupta	1000055					8225849997	akriti@ak.com	Active
Amanda Sayfrieds	1000051					5763576898	ammu.01@gmail.com	Active
Anish Kumar	1000049					9225848886	anish@an.com	Active
Annie Sharma	1000058					9125848447	annie@an.com	Active User
Ayushi Awasthi	1000053					8225848886	ayushi@ay.com	Active User
CHIMU JINSHU	14502019					456464643	U212@wwwd.in	Active User
Courtney Cox	1000059					7926538765	monika.7@gmail.com	Active User
DAVID MARTINEZ	1000040							Active User
ELA Sharma	1000042							Active User
FRANKI KOLA	14502011					765555768765	IO@woo.in	Active
Humil Villa	14502009					1231231231	dav@wwwd.in	Active
JACKSON MUNIR	14502010					3443232334	trtdr@gm.in	Active
JAMULA MASTANA	1000052					3353535353	PO@we.in	Active
Jessica Alba	1000057					8926548340	Jassi.27@gmail.com	Active User
John Wick	1000060					9211420786	boogey.man@gmail.com	Active
Kalyanashis Chakraborty	1000009							Active User
Leonardo Vinci	1000039							Active User
MARINA ABOLAVA	14502012					4365556655	KIK@wr.in	Active
Martin Le	1000006							Active User
Mohit Sachdeva	1000012							Active User
Nikhil Sharma	1000045					9125848665	nikhil@nk.com	Active
NIRMAL ANUBHAV	14502014					4364645646	YT@we.in	Active User

Fig.2.13 Records of Supervisors

Employee: Cox, Courtney-1000059

General Contact Details Locations & Assets Move Locations Credentials Profile History Notifications Notes & Documents System Calendar Details Calendar Workflow Instance

(Required): Manage general information about the employee.

General

ID 1000059	Status Active User	Image
Last Name Cox	First Name Courtney	
Full Name Courtney Cox	Nick Name Monika	
Prefix Miss		

Detail

Date of Hire 01/26/2019	Date of Exit 12/31/2019
Title Supervisor	
Functional Role Manager	
Assignment Type Assigned	
Maintenance Priority Medium	
Last Reported Problem Location	

Reports To

Reports To

Primary Organization

Organization Path

Contact Information

Work Phone 7926538765	Work Fax 120956
Mobile 8923108394	Home Phone 293650
Email monika.7@gmail.com	Pager

Primary Location

Location Path

No Graphic Available

Primary Address

Address Ramesh Nagar, New Delhi, India

Zip/Postal Code 519 Mail Stop 532798

[Geography Lookup](#) \Geography\Asia Pacific\India

Fig.2.14 Record Information of a Supervisor

Contact Information

Work Phone 7926538765	Work Fax 120956
Mobile 8923108394	Home Phone 293650
Email monika.7@gmail.com	Pager

Fig.2.15 Contact Information of a Supervisor

Primary Address

Address Ramesh Nagar, New Delhi, India	
Zip/Postal Code 519	Mail Stop 532798
Geography Lookup \Geography\Asia Pacific\India	
City New Delhi	
State/Province New Delhi	Country India

Fig.2.16 Primary Address of a Supervisor

Employee: Cox, Courtney-1000059

(Optional): Review Approval Routing and Status Changes Notification.

Manual Approvers (In Addition to Approval Requirements)

Export 1 total found

#	Person	Role	Use Roles From	Review Type
0				

Approval Reviews

Export 1 total found

Approval Status	#	Person	Review Status	Sent	Completed	Comment	Resolved Review Type
Approved	0						

Status Change Notifications

0 total found

On Status	Person	Role	Sent
No data to display			

Fig.2.17 Approval Requirements of Supervisor

Employee: Cox, Courtney-1000059

(Optional): Assign a user name to the employee. Once assigned and the Create User action is submitted, a workflow will automatically create a My Profile and Timesheet for this employee with a default password of 1Password*. They can change their password once they login to the application. You need to add this person to a User Group and grant them a User License for them to be able to login.

TRIRIGA Account

User Name ccox Active TRIRIGA User? Initial Pwd Reset

Default Portal

Home Page Menu
 Project Home Page Project Menu
 Sitemap?
 Disable Company Level?

Preferences

User Language US English Currency US Dollars
 Time Zone
 Delegate To
 Enable Bidi Support Bypass Work Task Approval Process for Mobile
 Direction of user-generated text Default
 Approval Amount 5.00 US Dollars

Accessibility

Enable Accessibility Mode Enable Skip Navigation

Group Details

User Group
 Admin Group

License Details

User License
 IBM TRIRIGA Anywhere Workplace Operations
 IBM TRIRIGA Application Builder
 IBM TRIRIGA Application Platform

Fig.2.18 Profile Tab of Supervisor

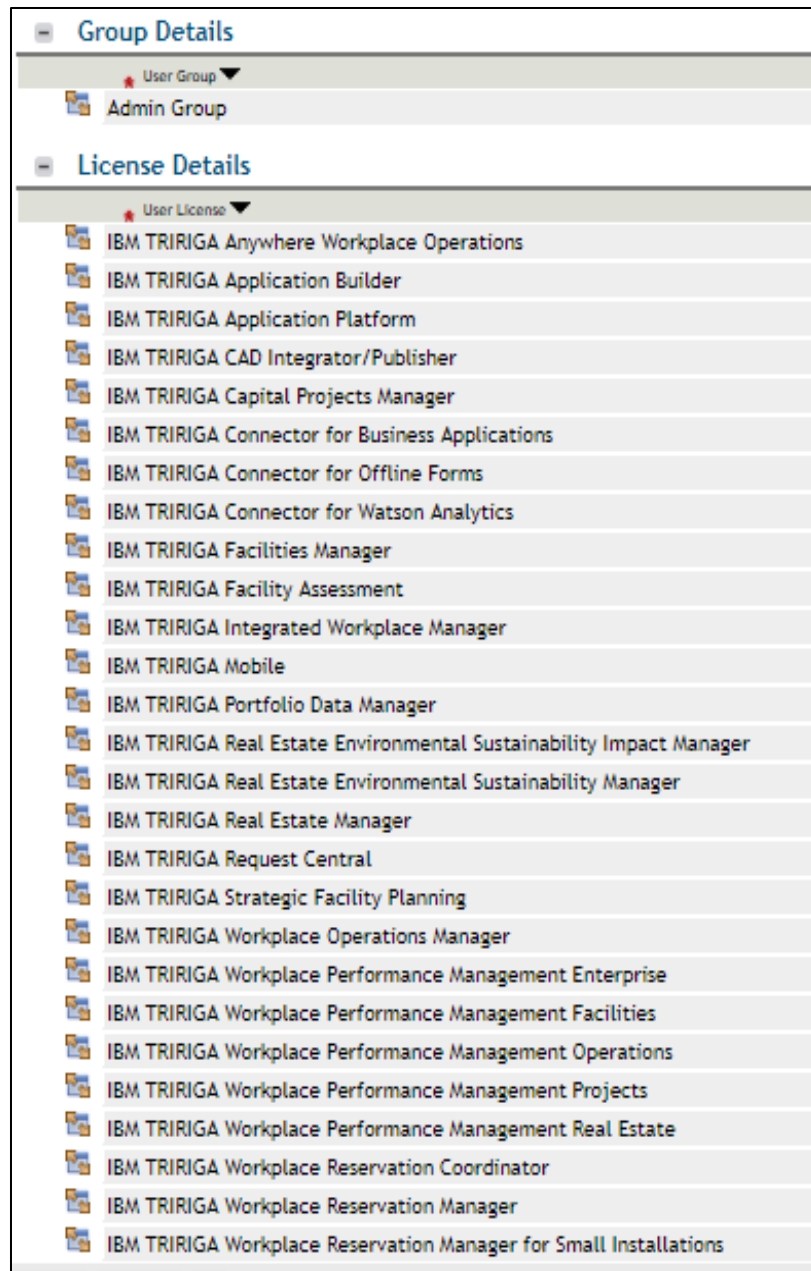


Fig.2.19 Group Details and License details of a Supervisor

Every time a car move request arises, it goes to the assigned supervisor of the car.

The purpose of the supervisor is to approve the car move request. Without the supervisor's approval the requester will not get it is request approved.

2.2.4 Car Creation



Fig.2.20Portal

CAR:

Welcome, Mohit Sachdeva | Sign Out | About | Sitemap

IBM TRIRIGA Company Project

Home My Reports Requests Projects Tasks Space Maintenance Sustainability Inventory Contracts Procurement **Portfolio** Tools

Fleet Management MS Fleet Management RI Fleet Management pr Locations Organizations People Assets

Home > Portfolio > Cars | Portfolio Set Up

Open In New Window Add to Bookmarks My Bookmarks

Cars Popup View

Add Delete Form

Related Reports: Cars

Export 4 total found Show: 50

Image	Name	Supervisor Name	Current Location	KBB Value	Current Mileage	Car Category	VIN #	% KBB	Status
	2002-Honda-Accord	Courtney Cox	Barcelona Airport	\$15,000.00	35000 miles	Hard Top	DEF921765	15	Review In Progress
	2004-Toyota-Corolla	Victoria Smith	Zurich Airport	\$25,000.00	12000 miles	Sedan	ABC195490	12	Review In Progress
	2005-Honda-Odyssey	Amanda Sayfrieds	MADRID BARAJAS AIRPORT	\$90.00	30000 miles	Soft Top	jj	0	Review In Progress
	2006-Chevrolet-Camaro	Jessica Alba	Zurich Airport	\$30,000.00	15 miles	Sedan	kpm	0	Review In Progress

Fig.2.21 Car Records

Car: 2004-Toyota-Corolla-DI-100002

General System Workflow Instance Reports Associations


Final Approval Hidden Return Revision Hidden Return Draft Hidden More x

General

★ Make Toyota	★ Model Corolla
★ Year 2004	★ ID DI-100002
Car Category Sedan	VIN # ABC195490
Name 2004-Toyota-Corolla	Status Review In Progress

Details

Description White colored with installation of high tech music system.

Image 

Current Mileage 12000
KBB Value \$25,000.00
% KBB 12

Supervisor

Name Victoria Smith	Title Supervisor
Work Phone 9725384061	eMail vicu.31@gmail.com
Address Jackson Villa, Barcelona, Spain	
City Barcelona	State/Province Barcelona
	Zip/Postal Code 08007

Current Location Primary Location Authorized Locations

Current Location

Current Location Zurich Airport
City Zurich
State/Province Zurich

Final Approval Hidden Return Revision Hidden Return Draft Hidden More x

Fig.2.22 Record of the car with Current Location

In the General Section, car's name with model number, year and category is given.

In Details section, details of the car is given like the description with an image and it's current mileage too.

The details of the supervisor is given in the Supervisor section like the supervisor's name, e-mail, work phone and complete address.

Current Location tab shows the current location of the car.

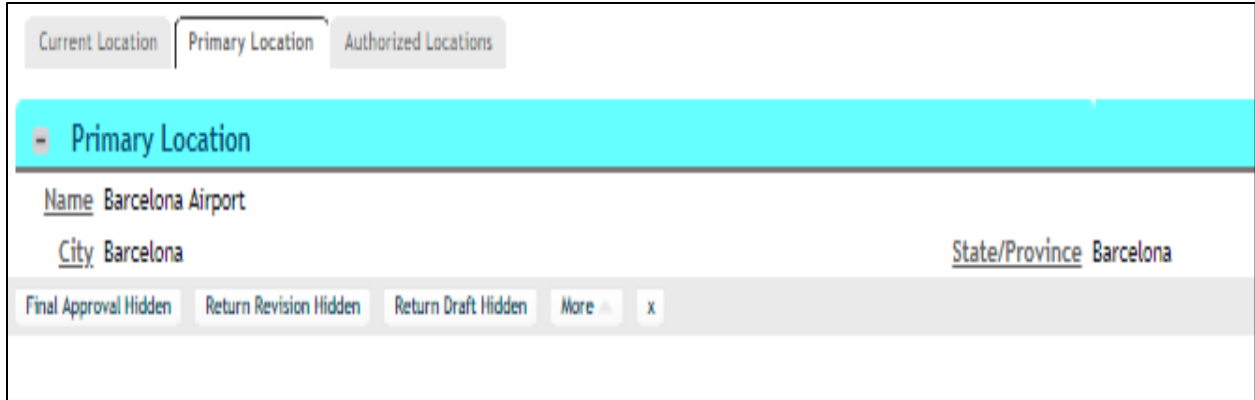


Fig.2.23 Record of the car with Primary Location

Primary Location tab shows the primary location of the car.

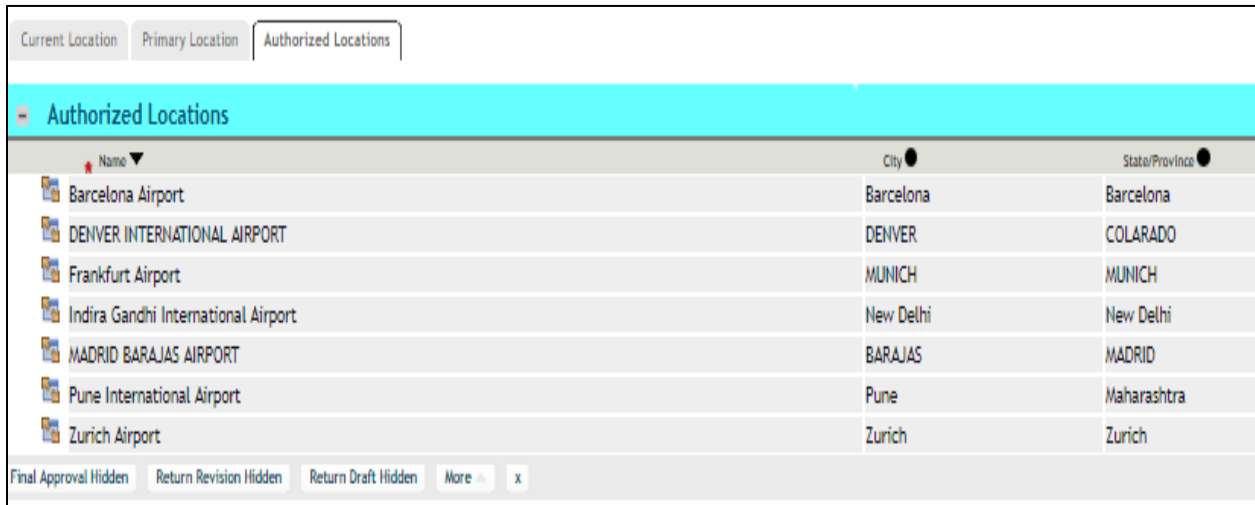


Fig.2.24Record of the car with Authorized Location

Authorized location of the car is shown in the Authorized Location's tab.

Car Move Request:

Welcome, Mohit Sachdeva | Sign Out | About | Sitemap

IBM TRIRIGA Company Project

Home My Reports Requests Projects Tasks Space Maintenance Sustainability Inventory Contracts Procurement **Portfolio** Tools

Fleet Management MS Fleet Management RI Fleet Management pr Locations Organizations People Assets Portfolio Set Up

Home > Portfolio > Car Move Request Open In New Window Add to Bookmarks My Bookmarks

Related Reports: Car Move Request Popup View Add Delete Form

[Export](#) 9 total found [Apply Filters](#) [Clear Filters](#) Show: 20

Car Category	Image	Name	Date Requested	Date Completed	Move Type
<input type="checkbox"/> Contains		Contains	After	After	Contains
<input type="checkbox"/> Sedan		2004-Toyota-Corolla	04/26/2019	05/10/2019	Within State
<input type="checkbox"/> Soft Top		2005-Honda-Odyssey	02/16/2019	04/27/2019	City Move
<input type="checkbox"/> 2WD SUV		2005-Nissan-Maxima	01/31/2019	02/16/2019	Between States
<input type="checkbox"/> Sedan		2006-Chevrolet-Camaro	04/25/2019	04/27/2019	Between States
<input type="checkbox"/> Hard Top		2006-Ford-F-150	11/01/2018	01/31/2019	Within State
<input type="checkbox"/> Sedan		2009-Ford-Mustang	04/11/2019	04/14/2019	Between States
<input type="checkbox"/> Sedan		2009-Ford-Mustang	04/25/2019	04/30/2019	City Move
<input type="checkbox"/> Sedan		2010-Toyota-Corolla	01/15/2019	05/21/2019	Within State

Fig.2.25 Records for Move Request


General	
ID	Move Duration 3 Days
Date Requested 05/02/2019	Date Completed 05/05/2019
Description Orange sports car.	
From Location Pune International Airport	
From City Pune	From State Maharashtra
To Location Indira Gandhi International Airport	
To City New Delhi	To State New Delhi
Move Type City Move	Status Review In Progress
Car	
Name 2005-Honda-Odyssey	Car Category Soft Top
Image 	VIN # jj
Current Mileage 10	
Requested For	Requested By
Address Sunburn Apartments, Zurich, Switzerland	Name Victoria Smith
City Zurich	Title Supervisor
State/Province Zurich	City Barcelona
Name Amanda Sayfrieds	Work Phone 9725384061
Work Phone 5763576898	State/Province Barcelona
Cost	
Mileage Cost \$12.00	
Overhead Cost \$8.00	
Labor Cost \$16.00	
Total BO \$36.00	
Total WF \$36.00	

Fig.2.26 Record Information of Car Move Request

In Car Move Request form, we attached a query (customized query) which will compare From Location to Available cars at that location from Car Records and available cars can be seen in car smart section in car move request form.

Date requested will be shown as Car Move Request For Today and date completed shows an estimated time of completion of that trip.

Requested By is the person who apply request to rent a car and Requested For is the person for whom car is requested.

The total cost of the rented car is the sum of mileage, overhead and labor cost which has to be paid by the requester.

The description of the car will be given for the ease of the customer.

cstCarMoveRequestMS - Customized Query

General Columns Order & Group Filters Advanced Where Used History Revisions Run Report Save Save & Close x

Step 1 of 8 (Required):

General

Name: ID:

Header (Title): Tag:

Description:

Type: Data Scope:

Track History:

Created By: Sachdeva, Mohit - 1000012 Modified By: Sachdeva, Mohit - 1000012

Show As Community Report: Modified Date: 04/25/2019

Revision: 4 Object Label: In Progress

Business Objects Options Related Reports Security

Business Object: [Add Business Object](#) | [Edit](#) | [Remove](#)

Module	Business Object	Form	Association Type
-cstFleetManagementMS	Car	Car	-
-Location	Property	-All-	Has Current Location

Fig.2.27 Query used for Find Car in Car Move Request

cstCarMoveRequestMS - Customized Query

General Columns Order & Group Filters Advanced Where Used History Revisions Run Report Save Save & Close x

Step 2 of 8 (Required):

Select a Business Object to show associated columns

Business Object:

Module	Business Object	Form	Association Type
-cstFleetManagementMS	Car	Car	-
-Location	Property	-All-	Has Current Location

Select column(s) to display on report

Columns:

General (General)

Field Label	Field Name
<input type="checkbox"/> !	triUserMessageFlagTX
<input type="checkbox"/> % KBB	cstPercentKbbNU
<input type="checkbox"/> Attention!	triUserMessageTX
<input type="checkbox"/> Business Object Label	triBusinessObjectLabelSY
<input type="checkbox"/> Business Object Name	triBusinessObjectNameSY
<input checked="" type="checkbox"/> Car Category	cstCarCategoryCL
<input type="checkbox"/> City	cstCurrentLocCityTX
<input type="checkbox"/> Control Number	triControlNumberCN
<input type="checkbox"/> CreatedBy	CreatedBy
<input type="checkbox"/> Created Date/Time	triCreatedSY
<input type="checkbox"/> CreatedTime	CreatedTime
<input checked="" type="checkbox"/> Current Location	cstCurrentLocNameTX

Display Columns: [Move up](#) | [Move down](#) | [Move to top](#) | [Move to bottom](#) | [Remove](#)

Field	Report Label	Width
<input checked="" type="checkbox"/> Name (triNameTX)	<input type="text" value="Name"/>	<input type="text" value="100%"/>
<input type="checkbox"/> Current Location (cstCurrentLocNameTX)	<input type="text" value="Current Location"/>	<input type="text" value="100%"/>
<input type="checkbox"/> Car Category (cstCarCategoryCL)	<input type="text" value="Car Category"/>	<input type="text" value="100%"/>

Fig.2.28 Column section of the query used for Find Car in Car Move Request

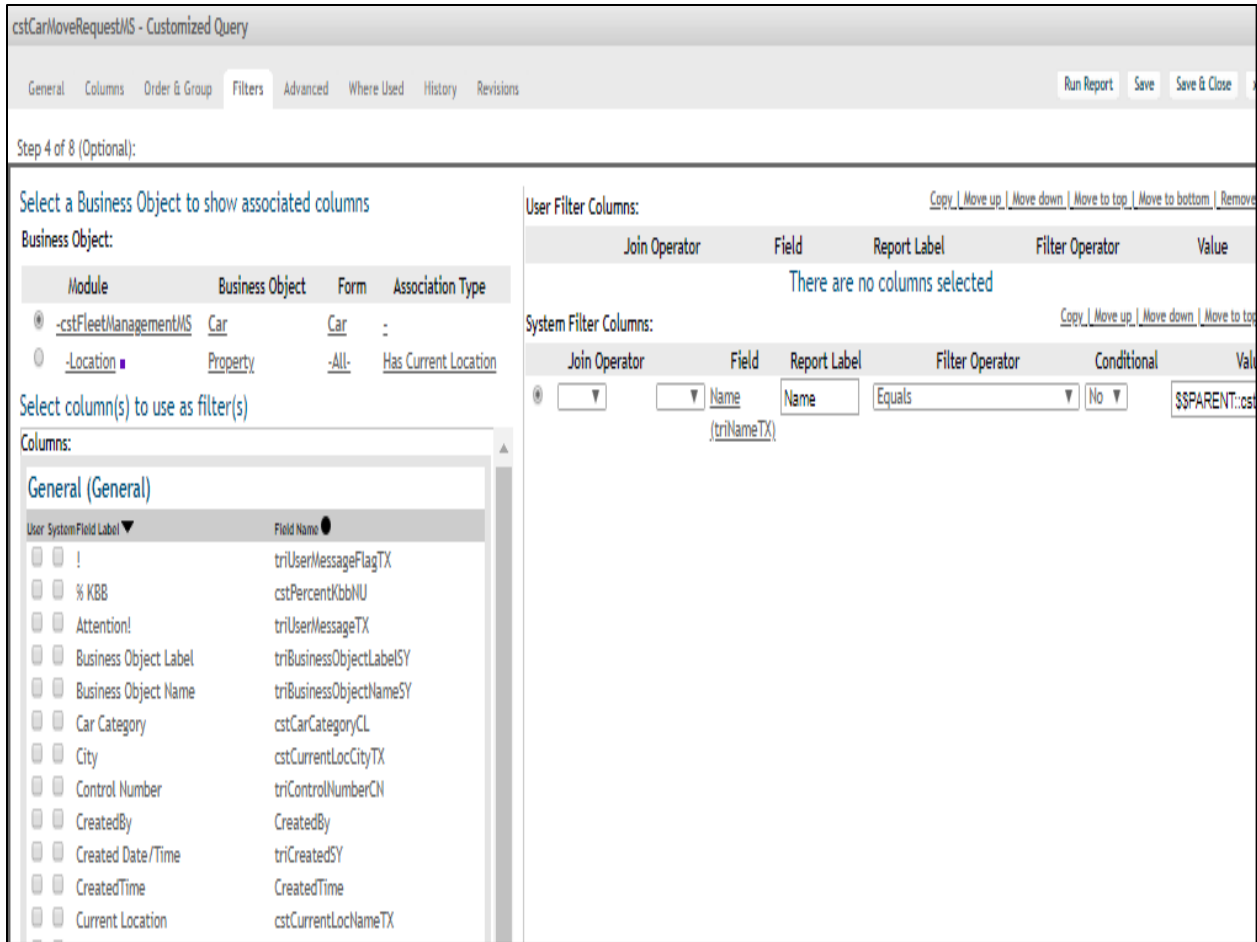


Fig.2.29 Filter section of the query used for Find Car in Car Move Request

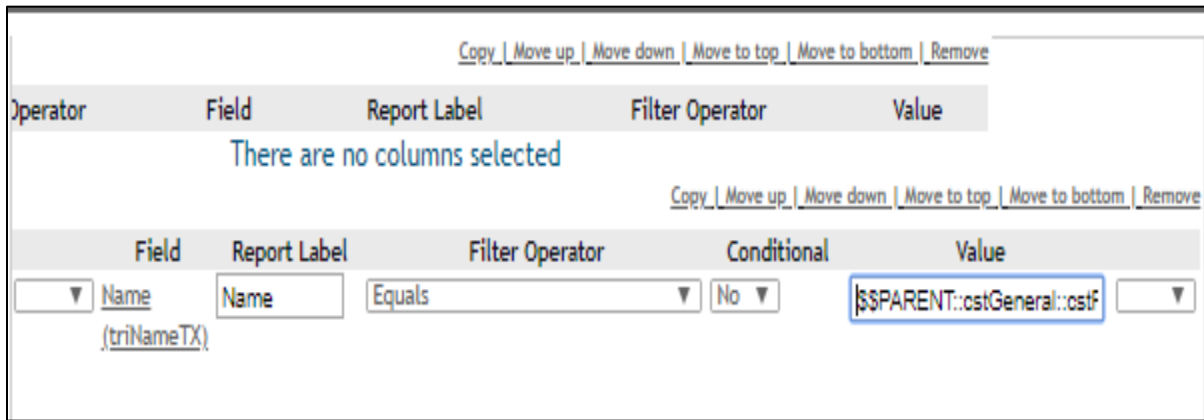


Fig.2.30 Value used in the query

The supervisor can be in the Created By section.

Car Move Request MS: 2005-Honda-Odyssey

General System Notification Contact Workflow Instance Reports Associations

Final Approval Hidden Return Revision Hidden Return Draft Hidden More x

(Optional): Review the System Record Information

Record Information

System Geography

System Location

System Organization

System Business Object ID	10036184	Business Object Label	Car Move Request
Business Object Name	cstCarMoveRequestMS	Control Number	1000003
Created Date/Time	04/11/2019 16:48:24	Modified Date/Time	04/26/2019 18:18:22
System Form ID	10048611	Record Form	Car Move Request MS
Form Name	cstCarMoveRequestMS	System Record ID	132645748
Record Name	2005-Honda-Odyssey	Record State	triReview
Previous Status	Revision In Progress	Status	Review In Progress

Created By

City: Barcelona

Name: Victoria Smith State/Province: Barcelona

Title: Supervisor Work Phone: 9725384061

Hide Cost

Final Approval Hidden Return Revision Hidden Return Draft Hidden More x

Fig.2.31 System tab of Car Move Request

Car Move Request MS: 2005-Honda-Odyssey

General System Notification Contact Workflow Instance Reports Associations

Final Approval Hidden Return Revision Hidden Return Draft Hidden More x

(Optional): Review Approval Routing

Manual Approvers (In Addition to Approval Requirements)

Export 2 total found Show: 10

#	Person	Role	Use Roles From	Review Type
1	Ayushi Awasthi			Required Review
1	Victoria Smith			Required Review

Approval Review

Export 2 total found Show: 10

#	Approval Status	Person	Review Status	Sent	Completed	Comment	Resolved Review Type
	Review In Progress	1 Ayushi Awasthi	Pending	04/26/2019 18:18:32			Manual
	Review In Progress	1 Victoria Smith	Approved	04/26/2019 18:18:32	04/26/2019 18:40:58	The request is approved.	Manual

Final Approval Hidden Return Revision Hidden Return Draft Hidden More x

Fig.2.32 Approval Requirements of Car Move Request

Contact Person					
! Role	Person	Work Phone	Fax	Email	Primary Organization
Supervisor	Ayushi Awasthi	8225848886		ayushi@ay.com	

Fig.2.33 Contact tab of Car Move Request

Workflow Name	Status	Start Date
1 cstFleetManagement - WF WIZARD CANCEL - Hide attention section	Completed	05/03/2019 12:06:47 PM
2 cstFleetManagement - WF WIZARD CANCEL - Hide attention section	Completed	05/03/2019 12:02:37 PM
3 cstFleetManagement - WF WIZARD CANCEL - Hide attention section	Completed	04/26/2019 6:49:06 PM
4 cstCarMoveRequestMS - triActive - Submit for Approval and Dependant Record Update	Completed	04/26/2019 6:18:22 PM
5 cstCarMoveRequest - Synchronous - Calculate total cost	Completed	04/26/2019 6:18:22 PM
6 cstCarMoveRequestMS - Synchronous - Add Contact Role People	Completed	04/26/2019 6:18:12 PM
7 cstFleetManagement - WF WIZARD CANCEL - Hide attention section	Completed	04/26/2019 6:17:57 PM
8 cstCarMoveRequestMS - Synchronous - Add Contact Role People	Completed	04/26/2019 6:17:33 PM
9 cstFleetManagement - WF WIZARD CANCEL - Hide attention section	Completed	04/26/2019 6:14:12 PM
10 cstFleetManagement - WF WIZARD CANCEL - Hide attention section	Completed	04/26/2019 11:46:27 AM
11 cstFleetManagement - WF WIZARD CANCEL - Hide attention section	Completed	04/26/2019 11:45:07 AM
12 cstFleetManagement - WF WIZARD CANCEL - Hide attention section	Completed	04/26/2019 11:43:01 AM
13 cstFleetManagement - WF WIZARD CANCEL - Hide attention section	Completed	04/25/2019 11:06:17 AM
14 cstFleetManagement - WF WIZARD CANCEL - Hide attention section	Completed	04/24/2019 5:09:12 PM
15 cstCarMoveRequestMS - Synchronous - Add Approval People	Completed	04/24/2019 12:53:33 PM
16 cstFleetManagement - WF WIZARD CANCEL - Hide attention section	Completed	04/24/2019 12:52:35 PM
17 cstCarMoveRequestMS - Synchronous - Add Approval People	Completed	04/24/2019 12:47:56 PM
18 cstFleetManagement - WF WIZARD CANCEL - Hide attention section	Completed	04/24/2019 12:47:09 PM
19 cstFleetManagement - WF WIZARD CANCEL - Hide attention section	Completed	04/24/2019 12:42:33 PM
20 cstFleetManagement - WF WIZARD CANCEL - Hide attention section	Completed	04/24/2019 12:37:47 PM

Fig.2.34 Workflow Instance of Car Move Request

Chapter 3

Future Scope

Rental business is a heavy industry on the planet. Vehicle rental business holds more offer in the rental business world. Because of the improvement and quick moving work culture and rotational movements, it's not desirable over utilize claim transport for security travel. To comfort those individuals vehicle rental following framework would be extremely useful.

People from different areas can use it for business purpose, leisure and for other purposes. Now with the availability of the Car Rental Tracking System, this industry is providing easy online and offline booking services, automotive rental reservations and management. All these features surely grab attention of more customers.

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3. Wu Xindong, Zhang Chengqi, Zhang Shichao, "Mining both Positive and Negative Association Rules[C]", *Proceedings of the 19th International Conference on Machine Learning(ICML) San Francisco: Morgan Kaufmann Publishers*, pp. 658-665, 2002.