Internship Report

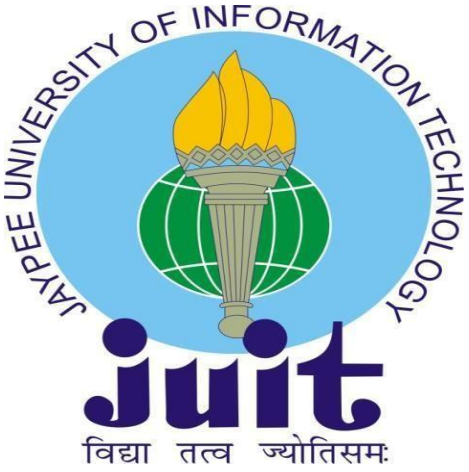
Internship report submitted in partial fulfillment of the requirement for the degree of Bachelor of Technology

In

Computer Science and Engineering/Information Technology

By

Ajay Singh (171218)



Department of Computer Science & Engineering

Jaypee University of Information Technology
Waknaghat, Solan-173234, Himachal Pradesh

ACKNOWLEDGEMENT

I take this opportunity to express my sincere thanks and deep gratitude to all those people who extended their wholehearted cooperation and have helped me in completing this internship successfully. First of all, I would like to thank **Mr. Gaurav Vashishth**, who mentored me, guided me and challenged me.

I also thank my family and friends who greatly supported me during the course of the Internship.
Last but not the least, I would like to thank our founders for considering me a part of the organization and provide such a great Platform to learn and enhance my skills.

A very special thanks goes to all the faculties of Jaypee University of Information Technology under whom guidance I have been able to excel in my career and become a part of the Paymentus family.

Ajay Singh (171218)

Jaypee University of Information Technology

DECLARATION

I hereby declare that this submission is my own work carried out at **Paymentus Corporation, Mohali** from **Feb, 2021** to **June, 2021** and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma from a university or other institute of higher learning, except where due acknowledgment has been made in the text.

Signature

Name: **Ajay Singh**

Date: 24-05-2021

CERTIFICATE

This is to certify that **Mr. Ajay Singh** of Jaypee University of Information Technology carried out the internship under my supervision at **Paymentus Corporation** from **Feb, 2021** to **June, 2021**. His efforts in the development of this internship were satisfactory.

Gaurav Vashishth

Date: 24 May,2021

Manager

Paymentus Corporation

SUMMARY

This report is all about what I learned as an intern and the work I carried out in Paymentus Corporation, Mohali during my internship period from Feb, 2021 to June, 2021.

Paymentus is the industry's fastest growing and most complete billing and payment network — powering the next generation of electronic bill payments.

In 2004, Payments was born from a desire to improve the way bills get paid. Vision innovation and exemplary service have propelled Paymentus to become the leading paperless electonic billing and payment solution on the market, resulting in 1,300 clients including some of the largest billers in North America.

Working here has taught me that a project is not only a piece of code, it is a compilation of uncountable number of modules and a process behind building these modules. Writing code is just a small fraction of making an application. Planning, assigning, reviewing, fixing, testing, compiling and tracking all this process are some other fractions of developing an application.

During this internship, I was trained on various modern and best practices used in Android Development using Kotlin. I got hands on experience on Material Design, various Android components, MVVM architecture, Kotlin Coroutines, Kotlin Flows, etc. Using all the acquired knowledge, I was able to create a Card Scanner using ML kit and Camera X which is used to extract card details instantly.

Ajay Singh

May 24, 2021

Table of Contents

Chapter I

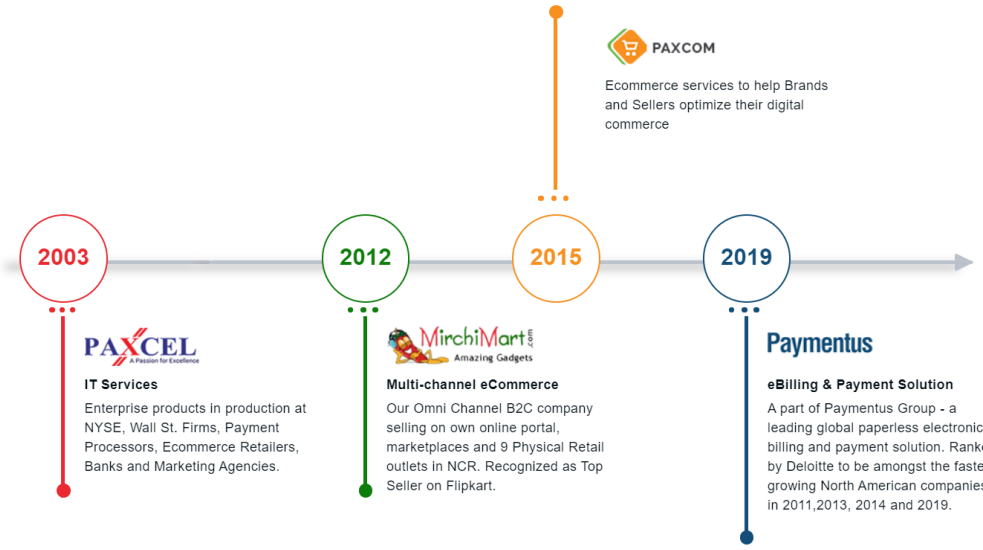
Organization Profile

1.1 Background:

Paymentus is a North Carolina based software company providing complete billing solutions.

I worked at Paymentus India Pvt Ltd at Mohali branch. I worked with the Hybrid-Billers Team and was successfully able to understand their working structure and pattern. I also learned soft skills like communicating within a corporate firm and working with a team. I was successfully able to understand various coding paradigms used by a company to build its application. I got a thorough understanding of some of the company's existing products and some of the upcoming products.

The working culture of the company is great. I thoroughly enjoyed myself working there. Paymentus has a typical blend of work and fun. Although I didn't get to spend much time in the company office and started working from home after the coronavirus pandemic lockdown, I really enjoyed the weekend football and various parties at the company. And even after the lockdown the communication between me and my team was good through various meeting platforms like skype and google meets.



Objectives:

The objectives of Paymentus are:

- The overall objective is to focus the activities towards its specialized services and to become a leader in thisniche in the country.
- Growth - To expand the business at a rate that is both challenging and manageable, serving the market with innovation and adaptability.

1.2. Ice breaker

Week 1:

- Corporate induction.
- Talent Manager connect.
- Paymentus Agenda session on cores values.
- Leaders Talk (Academy) and many more.

Week 2:

- Behavior Skills.
- Agile Workshop.
- Devops Workshop.
- Behavior session.

Chapter II

Internship program sequence

2.1 Stage 1 – Core Programming fundamentals

I was inducted as a team member in my cohort then, this core programming fundamentals started, this core programming fundamentals consist of the certains weeks in which we have to learn various technology and do various hands-on and assessment during this core programming sequence.

Week 1:

- Web designing with HTML and CSS.
- Javascript.
- Behavioral Skills.

In this week we all have to do is to compete udemy courses provided by the Paymentus during the internship, complete the hands-ons, assessment(inmportant), and to complete the integrated capability test also.

In the is week 1 we learned the designing part from scratch with the help of the HTML5 and CSS and also Javascript.

After we completed the online udemy courses, we did the hands-ons and completing the hands- on is mandatory for every interns and then, after completing the hands-ons we use to give assessment, a small test whose marks were taken into account, for the calculation of the in the final overall performance.

The most important part of this week was covering all the basis aspects of the designing and learning html and css and javascript from scratch because learning html and css is very important in designing.

It also covered integrating of html and css with the javascript to form proper webpage.

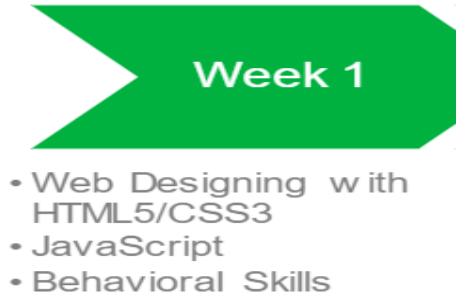
Below is the sample HTML and CSS, and Javascript Code.

CSSpractice.html

```html
<!DOCTYPE: html>
<html lang="en-US">
    <head>
        <link rel="stylesheet" href="css/style.css" />
        <title>HTML Page with CSS</title>
    </head>
    <body>
        <header>
            Fake Industry Expo Announcement
        </header>
        <article>
            Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do
            velit esse cillum dolore eu fugiat nulla pariao csstur. Excepte
        </article>
        <footer>
            &copy; Copyright Imaginary Organization 2016
        </footer>
    </body>
</html>
```

style.css

```css
body {
    font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
}
article {
    color: #5C373C;
    margin: 10px;
}
footer {
    font-size: x-small;
    font-style: italic;
    background-color: #C14860;
    padding: 10px;
}
header {
    font-size: x-large;
    font-weight: bold;
    text-align: center;
    background: -moz-linear-gradient(#051118, #5C373C);
    color: #CAA893;
    border: thin #CAA893 inset;
    margin: 20px 30px;
    padding: 10px 20px;
}
```



Week 2:

- Programming with Database.
- Behavioral Skills

In this week we all have to do is to compete udemy courses provided by the Paymentus during the internship, complete the hands-ons, assessment(important), and to complete the integrated capability test also.

In the is week 2 we learned the database part from scratch with the help of the Mysql and Mysql queries.

After we completed the online udemy courses, we did the hands-ons and completing the hands- on is mandatory for every interns and then, after completing the hands-ons we use to give assessment, a small test whose marks were taken into account, for the calculation of the in the final overall performance.

The most important part of this week was covering all the basis aspects of the database and learning mysql and queries and database from scratch because learning mysql and queries is very important in database.

It also covered integrating of html and css with the database to form proper webpage.

Below is the sample Mysql code.

```
shell> mysql your-database-name
```

```
CREATE TABLE shop (
    article INT UNSIGNED  DEFAULT '0000' NOT NULL,
    dealer  CHAR(20)      DEFAULT ''     NOT NULL,
    price   DECIMAL(16,2) DEFAULT '0.00' NOT NULL,
    PRIMARY KEY(article, dealer));
INSERT INTO shop VALUES
    (1,'A',3.45),(1,'B',3.99),(2,'A',10.99),(3,'B',1.45),
    (3,'C',1.69),(3,'D',1.25),(4,'D',19.95);
```

```
SELECT * FROM shop ORDER BY article;
+---------+--------+-------+
| article | dealer | price |
+---------+--------+-------+
|       1 | A      |  3.45 |
|       1 | B      |  3.99 |
|       2 | A      | 10.99 |
|       3 | B      |  1.45 |
|       3 | C      |  1.69 |
|       3 | D      |  1.25 |
|       4 | D      | 19.95 |
+---------+--------+-------+
```

Week 3,4,5:

- Programming with java with jdbc
- Behavioral skills

In this week we all have to do is to compete udemy courses provided by the Paymentus during the internship, complete the hands-ons, assessment(inmportant), and to complete the integrated capability test also.

In the is week 2 we learned the core java part from scratch with the help of the udemy courses and trainer guide queries.

After we completed the online udemy courses, we did the hands-ons and completing the hands- on is mandatory for every interns and then, after completing the hands-ons we use to give assessment, a small test whose marks were taken into account, for the calculation of the in the final overall performance.

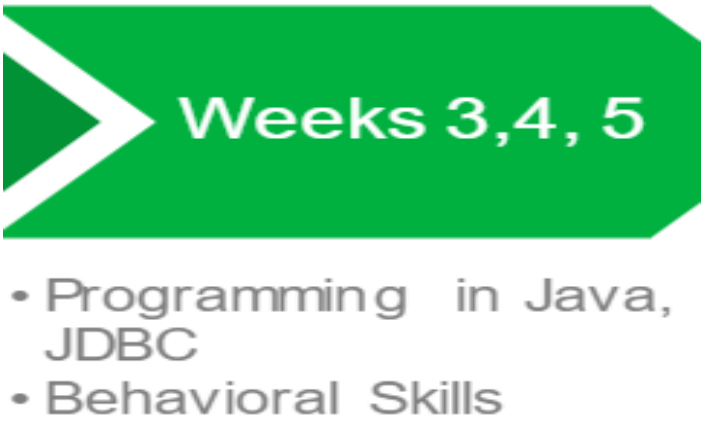
The most important part of this week was covering all the basis aspects of the core java and learning JDBC and database connectivity with database from scratch because learning java and JDBC is very important in application development.

It also covered integrating of Core java and JDBC with the database to form proper webpage.

This part was very long because it was 3 week long, and we started from core java to advance java part also, connecting small core java with database through database connectivity or JDBC.

This 3 weeks was very important because we learned very crucial things in this 3 weeks, the most important, that very developer should know for developing application.

We did around 30 hands-ons in this part, thae hands-ons were very long and difficult in this part.



The most important thing in these 3 weeks was basics of core java. We learned core java from basics and covering all aspects of the java, its features, it's uses and how to develop an application from scratch with the help of the java and connecting with database through JDBC.

JDBC was very important part in these 3 weeks because very application requires the database connectivity, and that's only possible with the of the database connectivity through JDBC.

We learned all aspects of the JDBC, all types of the Database connectivity and storing data in the tables in the database and also retrieving the data from the database using few lines of the codes.

Connecting to the database is very crucial in the application development and also is the major part in the application development.

Our trainer taught that 4 lines of code will we same in very code of JDBC, that 4 lines should known to very java developer who is working with the application development.

We also learned few packages which are very essential in connecting with the database and without that packages, it would we not possible to connect to the database. We also learned 4 types of database connectivity in the java application development.

Below is the sample example of few lines of the codes to store data and retrieve from the table form database.

```
import java.sql.*;

public class FirstExample {
   static final String DB_URL = "jdbc:mysql://localhost/TUTORIALSPOINT";
   static final String USER = "guest";
   static final String PASS = "guest123";
   static final String QUERY = "SELECT id, first, last, age FROM Employees";

   public static void main(String[] args) {
      // Open a connection
      try(Connection conn = DriverManager.getConnection(DB_URL, USER, PASS);
         Statement stmt = conn.createStatement();
         ResultSet rs = stmt.executeQuery(QUERY);) {
         // Extract data from result set
         while (rs.next()) {
            // Retrieve by column name
            System.out.print("ID: " + rs.getInt("id"));
            System.out.print(", Age: " + rs.getInt("age"));
            System.out.print(", First: " + rs.getString("first"));
            System.out.println(", Last: " + rs.getString("last"));
         }
      } catch (SQLException e) {
         e.printStackTrace();
      }
   }
}
```

Above is the small code of database connectivity or JDBC code.

Week-5(continuity)

Access type – 2 (Integrated capabilityTest)

After completing few technologies we had Integrated capability test, in which we combine our all knowledge what we learned in past weeks like HTML,CSS,Javascript,Code java, JDBC, and try to solve whole long coding question.

Integerated capability test is of 4 hours, which include all the things what we had learned till now.

It consist of 1 coding question and require full knowledge of all the technologies and integrate that to solve the coding question.

It's a simple or medium size project, which we get as a question in the Integrated capability test within 4 hours.

It contains the huge waitage in the overall perforamance, the overall performance is calculates as the average of the assessment, Integrated capability test, Bussiness unit score, Project score.

We get two attempts to give the integrated capability test, if we get failed in first attempt then, we get second attempt to give integrated capability test.

And the second attempt is the last attempt to Integrated capability test because failing in the second attempt can lead to the termination of the offer said by the HR in the one session.

2.2 Stage 2 – Deep learnings

Week 6:

- Spring core,maven

This is the second stage, deep learning the application development through the advance framework of the java. This is stage we learned Spring core and very basis of the spring framework.

Maven was the most important part in this stage and is very crucial in the application development during the project, we learned the maven basic part related to application development.

Maven and spring core both contribute a lot in developing great application with java, Maven is the most basic of the java application development and used in the real world project.

Below is the sample Maven code.

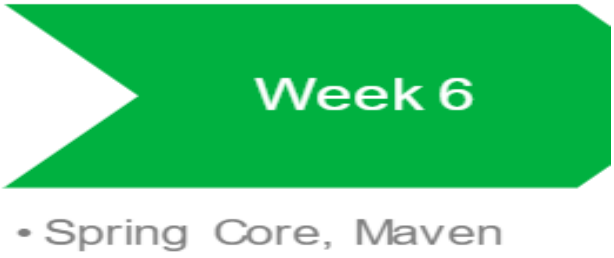
```
<project xmlns="http://maven.apache.org/POM/4.0.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xsi:schemaLocation="http://maven.apache.org/POM/4.0.0
http://maven.apache.org/maven-v4_0_0.xsd">

 <modelVersion>4.0.0</modelVersion>
 <groupId>com.javatpoint</groupId>
 <artifactId>CubeGenerator</artifactId>
 <packaging>jar</packaging>
 <version>1.0-SNAPSHOT</version>
 <name>CubeGenerator</name>
 <url>http://maven.apache.org</url>
 <dependencies>
  <dependency>
   <groupId>junit</groupId>
   <artifactId>junit</artifactId>
   <version>3.8.1</version>
   <scope>test</scope>
  </dependency>
 </dependencies>
</project>
```

```
package com.javatpoint;
/**
 * Hello world!
 *
 */
public class App
{
    public static void main( String[] args )
    {
        System.out.println( "Hello World!" );
    }
}
```

```
package com.javatpoint;

import junit.framework.Test;
import junit.framework.TestCase;
import junit.framework.TestSuite;
/**
 * Unit test for simple App.
 */
public class AppTest
    extends TestCase
{
    /**
     * Create the test case
     *
     * @param testName name of the test case
     */
    public AppTest( String testName )
    {
        super( testName );
    }
    /**
     * @return the suite of tests being tested
     */
```

```
    public AppTest( String testName )
    {
        super( testName );
    }
    /**
     * @return the suite of tests being tested
     */
    public static Test suite()
    {
        return new TestSuite( AppTest.class );
    }
    /**
     * Rigourous Test :-)
     */
    public void testApp()
    {
        assertTrue( true );
    }
}
```

```
mvn clean compile
```



Week 7,8:

- Spring core
- JUnit andMockito
- Code quality

In this part of time we had 2 weeks consist of the spring core, JUnit and mockito and code quality.

In this we did Code testing online udemy course using the tools like JUnit and Mockito.

We also learned the code quality, means how to increase the code quality of error code when some error is there in the code.

In Spring core we learned the spring core framework of the java, how to develop the application without the use of the large length of the code, that's means how can we do application development with less amount of the code. Spring framework helps us to use injections and dependencies.

In spring framework we use constructor injection and setter injection for the access of the object or beans.

Spring framework is very flexible and widely used in the industry for the application development in the field of the java.

Next, we learned the JUnit in this part of the time which was related to the testing field , how to test the written code with junit tool.

Junit is very and widely used testing tool, which require java code on which we can test the test cases through the junit.

In Junit , J stands for the java, which means tool for the java code testing. So,Junit is widely used tool for the testing of the java code in real life project development and in the industry.

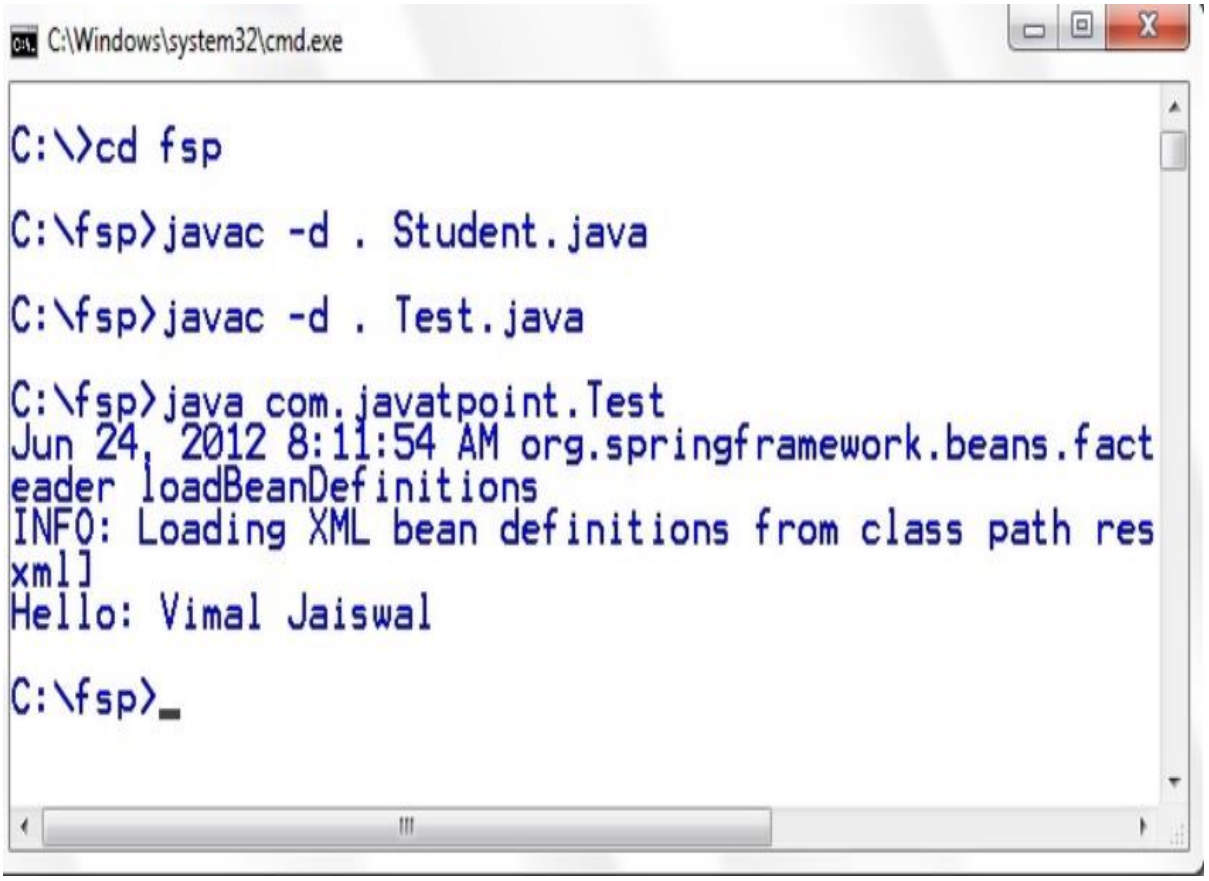
We did the hands-ons of the spring,junit and mockito , which little difficult to do but, we completed that with in the given time frame.

Sample Spring core code.

```
package com.javatpoint;

public class Student {
private String name;

public String getName() {
   return name;
}

public void setName(String name) {
   this.name = name;
}

public void displayInfo(){
   System.out.println("Hello: "+name);
}
}
```

```
<?xml version="1.0" encoding="UTF-8"?>
<beans
   xmlns="http://www.springframework.org/schema/beans"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:p="http://www.springframework.org/schema/p"
   xsi:schemaLocation="http://www.springframework.org/schema/beans
         http://www.springframework.org/schema/beans/spring-beans-3.0.xsd">

<bean id="studentbean" class="com.javatpoint.Student">
<property name="name" value="Vimal Jaiswal"></property>
</bean>

</beans>
```

```
package com.javatpoint;

import org.springframework.beans.factory.BeanFactory;
import org.springframework.beans.factory.xml.XmlBeanFactory;
import org.springframework.core.io.ClassPathResource;
import org.springframework.core.io.Resource;

public class Test {
public static void main(String[] args) {
    Resource resource=new ClassPathResource("applicationContext.xml");
    BeanFactory factory=new XmlBeanFactory(resource);

    Student student=(Student)factory.getBean("studentbean");
    student.displayInfo();
}
}
```



Sample JUnit code.

```
package com.javatpoint.logic;
public class Calculation {
   //method that returns maximum number
   public static int findMax(int arr[]){
      int max=0;
      for(int i=1;i<arr.length;i++){
         if(max<arr[i])
            max=arr[i];
      }
      return max;
   }
   //method that returns cube of the given number
   public static int cube(int n){
      return n*n*n;
   }
   //method that returns reverse words
   public static String reverseWord(String str){

      StringBuilder result=new StringBuilder();
      StringTokenizer tokenizer=new StringTokenizer(str," ");
```

```
   //method that returns cube of the given number
   public static int cube(int n){
      return n*n*n;
   }
   //method that returns reverse words
   public static String reverseWord(String str){

      StringBuilder result=new StringBuilder();
      StringTokenizer tokenizer=new StringTokenizer(str," ");

      while(tokenizer.hasMoreTokens()){
      StringBuilder sb=new StringBuilder();
      sb.append(tokenizer.nextToken());
      sb.reverse();

      result.append(sb);
      result.append(" ");
      }
      return result.toString();
   }
}
```

```
package com.javatpoint.testcase;

import static org.junit.Assert.assertEquals;
import org.junit.After;
import org.junit.AfterClass;
import org.junit.Before;
import org.junit.BeforeClass;
import org.junit.Test;
import com.javatpoint.logic.Calculation;

public class TestCase2 {

   @BeforeClass
   public static void setUpBeforeClass() throws Exception {
      System.out.println("before class");
   }
   @Before
   public void setUp() throws Exception {
      System.out.println("before");
   }

   @Test
   public void testFindMax(){
      System.out.println("test case find max");
```

```
      System.out.println("test case find max");
      assertEquals(4,Calculation.findMax(new int[]{1,3,4,2}));
      assertEquals(-2,Calculation.findMax(new int[]{-12,-3,-4,-2}));
   }
   @Test
   public void testCube(){
      System.out.println("test case cube");
      assertEquals(27,Calculation.cube(3));
   }
   @Test
   public void testReverseWord(){
      System.out.println("test case reverse word");
      assertEquals("ym eman si nahk",Calculation.reverseWord("my name is khan");
   }
   @After
   public void tearDown() throws Exception {
      System.out.println("after");
   }

   @AfterClass
   public static void tearDownAfterClass() throws Exception {
      System.out.println("after class");
   }

}
```

```
Output:before class
       before
       test case find max
       after
       before
       test case cube
       after
       before
       test case reverse word
       after
       after class
```

Sample Mockito code.

```
package org.arpit.java2blog;
import static org.junit.Assert.assertEquals;
import static org.mockito.Mockito.*;

import java.util.List;

import org.junit.Rule;
import org.junit.Test;
import org.mockito.Mock;
import org.mockito.junit.MockitoJUnit;
import org.mockito.junit.MockitoRule;


public class TestWithMockitoJUnitRule  {

 @Rule
 public MockitoRule rule = MockitoJUnit.rule();

 @Mock
 private List list;

 @Test
 public void testQuery()  {

 //arrange
 when(list.get(anyInt())).thenReturn("Default element");

 String tenthElement=list.get(9);

 //assert
 assertEquals("Default element", tenthElement);
 }
```

Week 9:

- Spring MVC
- Spring boot

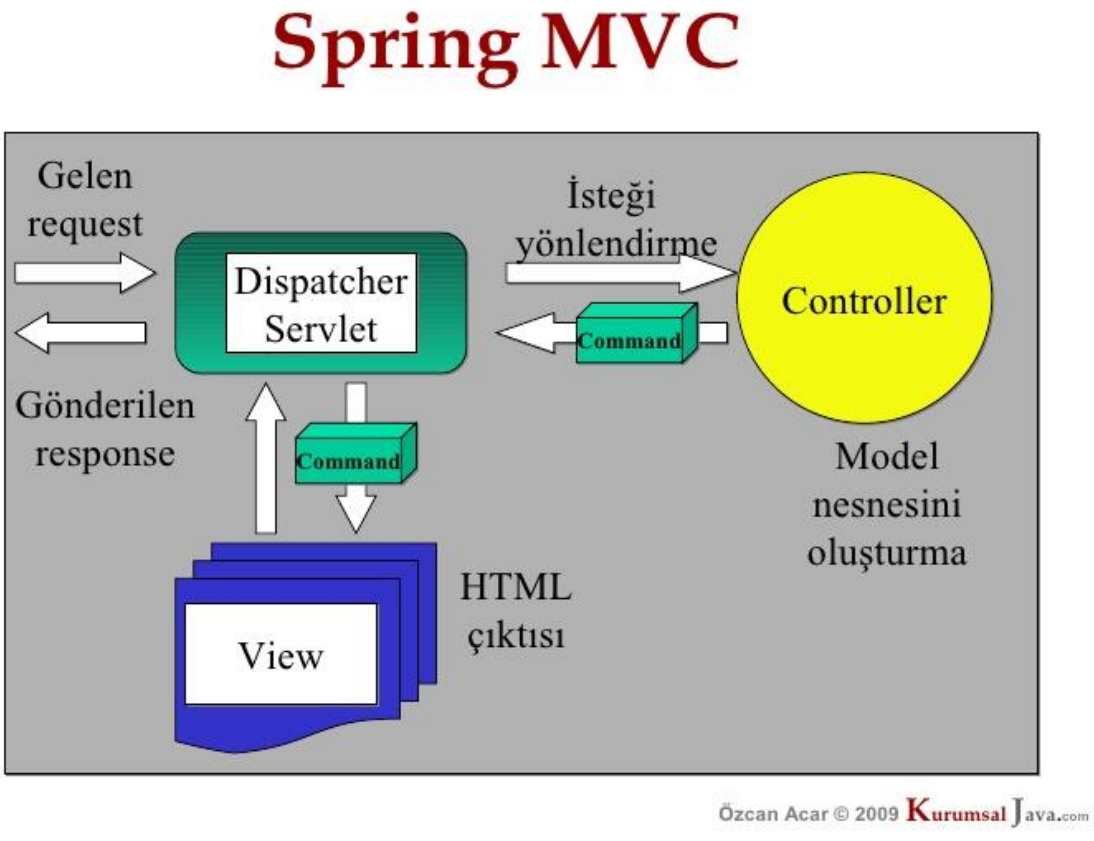
In this part of the time, we learned about the advance part of the spring, Spring MVC and Spring boot.

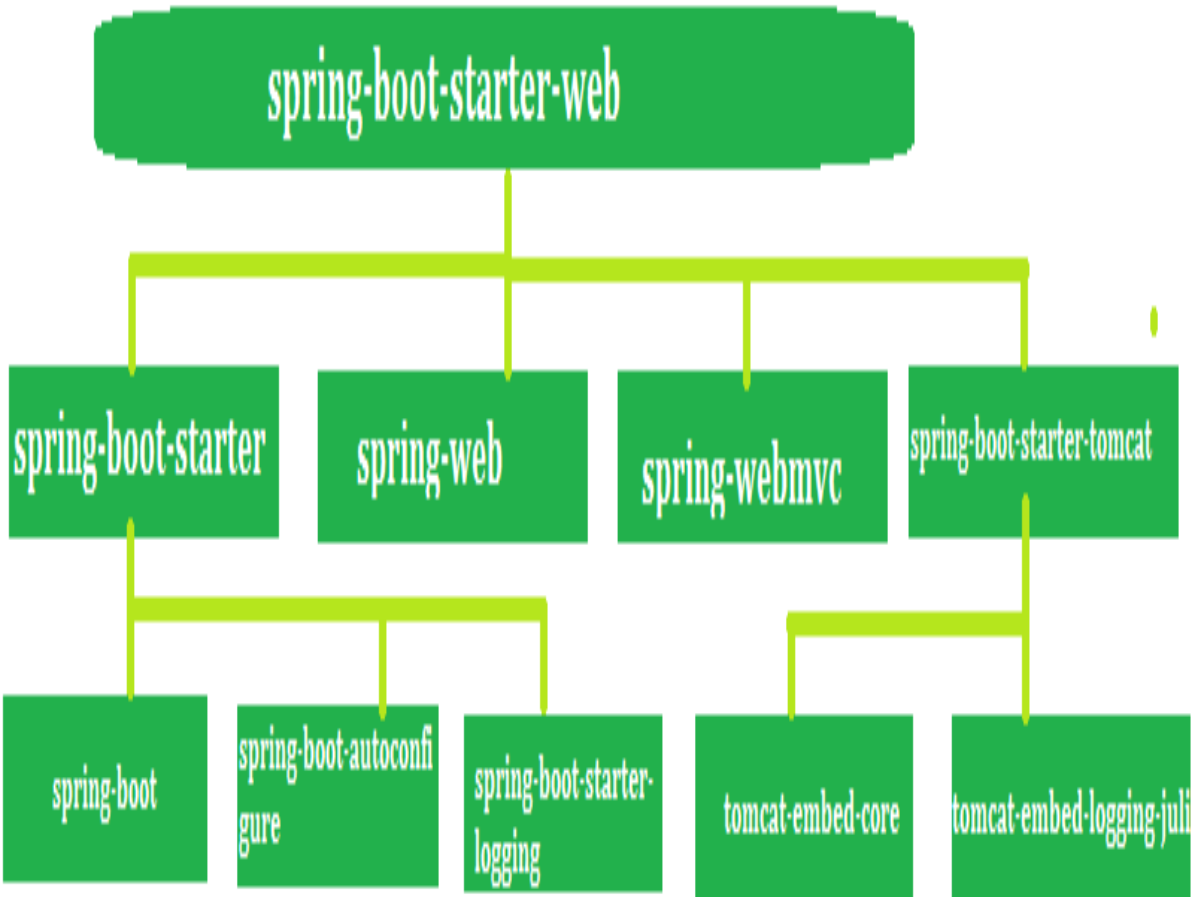
Spring MVC (model, view, control) is most used and developer favorite framework used in the real world for the application development.

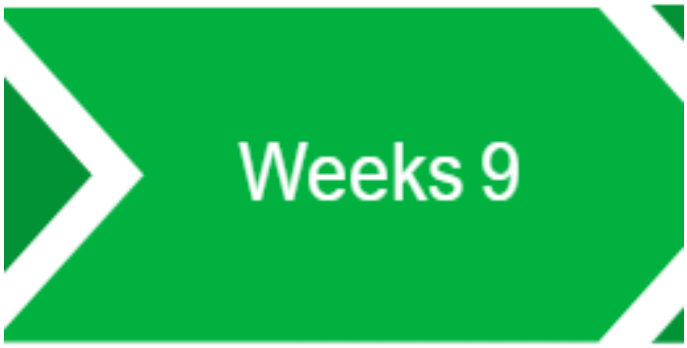
We learned the spring MVC form Udemy course provided by the Paymentus during the internship.

Spring MVC comes under the advance framework of the java, now a days most of the application are being developed by the help of the spring MVC model.

Spring boot is another framework of the java comes under the advance part of the java, to work with the spring boot, we need to have some basic knowledge of the core java and spring core to work with the spring boot.







Spring MVC and Spring Boot

Week-10

Access type – 2 (Integrated capabilityTest)

After completing few technologies we had Integrated capability test, in which we combine our all knowledge what we learned in past weeks like Spring core, Maven, Junit, Mockito, Spring core, Spring boot, spring MVC and try to solve whole long coding question.

Integrated capability test is of 4 hours, which include all the things what we had learned till now.

It consists of 1 coding question and require full knowledge of all the technologies and integrate that to solve the coding question.

It's a simple or medium size project, which we get as a question in the Integrated capability test within 4 hours.

It contains the huge waitage in the overall perforamance, the overall performance is calculates as the average of the assessment, Integrated capability test, Bussiness unit score, Project score.

We get two attempts to give the integrated capability test, if we get failed in first attempt then, we get second attempt to give integrated capability test.

And the second attempt is the last attempt to Integrated capability test because failing in the second attempt can lead to the termination of the offer said by the HR in the one session.

2.3 Stage 3 – Deep Niche Skills

Weeks 10,11:

- Spring REST with Spring
- Boot, Git, JQuery, Bootstrap

In this part of the time we learned about some advance application development technology like Spring REST with spring. Spring Rest is very highly demanding technologies today in the market, spring Rest is another very important java framework which is used for the application development.

Spring Rest is fully based on the Spring concept and is very helpful in the application development, especially java application development. Spring REST is most advanced framework used in the industry to develop the java application.

Spring Rest uses the rest feature also, which is also very important for the application development, the Rest is mostly used in the API and application programming interface is based on the http request and http reponse.

Spring Rest Api is widely used in the Information technology market to develop the application development, we can say we must know the basics of the spring and API to get started with the Spring API.

Spring Rest Api is enhanced API tool to use the API features with the spring, if somebody is creating the application which is the more modern looking website or application then, we can create that application or website with the help of the spring and spring rest Api tool.

Spring Rest Api tool reduces most the developer time and effort and make application development more easy to the developer .

This is the most important and crucial in the application development and make developer work easy and less time consuming.

Spring Rest Api is the tool which must be used in very application development because it is widely used in the Information technology.


```
package com.javatpoint;
public class Product
{
private int id;
private String pname;
private String batchno;
private double price;
private int noofproduct;
//default constructor
public Product()
{

}
//constructor using fields
public Product(int id, String pname, String batchno, double price, int noofproduct)
{
super();
this.id = id;
this.pname = pname;
this.batchno = batchno;
this.price = price;
this.noofproduct = noofproduct;
}
//getters and setters
```

```
}
//getters and setters
public int getId()
{
return id;
}
public void setId(int id)
{
this.id = id;
}
public String getPname()
{
return pname;
}
public void setPname(String pname)
{
this.pname = pname;
}
public String getBatchno()
{
return batchno;
}
public void setBatchno(String batchno)
{
```

```
{
return batchno;
}
public void setBatchno(String batchno)
{
this.batchno = batchno;
}
public double getPrice()
{
return price;
}
public void setPrice(double price)
{
this.price = price;
}
public int getNoofproduct()
{
return noofproduct;
}
public void setNoofproduct(int noofproduct)
{
this.noofproduct = noofproduct;
}
}
```

ProductController.java

```
package com.javatpoint;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.RestController;
@RestController
public class ProductController
{
@Autowired
private IProductService productService;
//mapping the getProduct() method to /product
@GetMapping(value = "/product")
public List<Product> getProduct()
{
//finds all the products
List<Product> products = productService.findAll();
//returns the product list
return products;
}
}
```

IProductService.java

```
package com.javatpoint;
import java.util.List;
public interface IProductService
{
List<Product> findAll();
}
```

ProductService.java

```
package com.javatpoint;
import java.util.ArrayList;
import java.util.List;
import org.springframework.stereotype.Service;
@Service
public class ProductService implements IProductService
{
@Override
public List<Product> findAll()
{
//creating an object of ArrayList
ArrayList<Product> products = new ArrayList<Product>();
//adding products to the List
products.add(new Product(100, "Mobile", "CLK98123", 9000.00, 6));
products.add(new Product(101, "Smart TV", "LGST09167", 60000.00, 3));
products.add(new Product(102, "Washing Machine", "38753BK9", 9000.00, 7));
products.add(new Product(103, "Laptop", "LHP29OCP", 24000.00, 1));
products.add(new Product(104, "Air Conditioner", "ACLG66721", 30000.00, 5));
products.add(new Product(105, "Refrigerator ", "12WP9087", 10000.00, 4));
//returns a list of product
return products;
}
}
```

index.html

```
<!DOCTYPE html>
<html>
<head>
<title>Home page</title>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
<p>
<a href="product">Get all Products</a>
</p>
</body>
</html>
```

Spring boot is the modern tool for the development of the application on any platform on which we can host the application.

Spring boot also provide infrastructure support at the developer level and reduces most of the time and effort of the developer so, that developer can efficiently develop the application within specified time limit.

Git is the version control tool used for the application development by the developer. Developer can develop the application and can change the code from time to time as per the time when there is need for the modification by the customer or the by the modern time, Git is very famous tool and widely used tool not only in the student community but, also in the developer community for the enhancement of the application and better development of the application.

Jquery is another javascript library used widely by the developer in the information technology world for the development of the application for the real purpose. Jquery makes HTML page more responsive and good looking because it support many features which is not there in the previous ones. JQuery is most widely used and important and crucial tool for the development of the application which contains the HTML and CSS coding.

Bootstrap is the another library used in the development of the application which uses the HTML and CSS codes with Javascript codes. Bootstrap contains open source SVG icon library, which is the most used library now a days for the development of the application which contains the HTML and CSS code with the javascript code.

HTML Code

```
<div id="animateMe">
    Watch me be animated!
</div>
<!-- One button for each fading command -->
<input type="button" id="btnAnimate" value="Animate It">
<input type="button" id="btnAnimateBack" value="Animate It Back">
```

CSS Code

```
div#animateMe {
    left: 0;
    top: 0;
    position: relative;
    width: 300px;
    height: 100px;
    border: 1px solid black;
    background-color: teal;
}
```

CSS Code

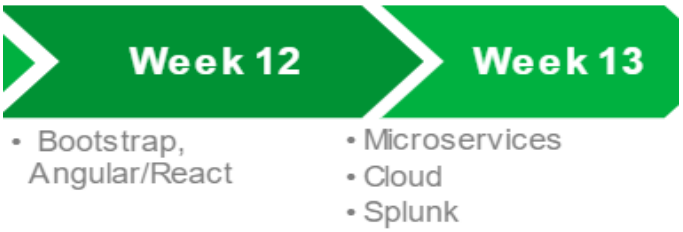
```
div#animateMe {
    left: 0;
    top: 0;
    position: relative;
    width: 300px;
    height: 100px;
    border: 1px solid black;
    background-color: teal;
}
```

JavaScript Code

```
$('#btnAnimate').click(function() {
        $('#animateMe').animate({
        'left': '300px',
        'top': '200px',
        'border-width': '8px'
    }, 1000);
});
$('#btnAnimateBack').click(function() {
        $('#animateMe').animate({
        'left': '0',
        'top': '0',
        'border-width': '1px'
    }, 1000);
});
```

Weeks 12,13:

- Bootstrap
- Angular/React
- Microservices
- Cloud(AWS)
- Splunk



Bootstrap is the another library used in the development of the application which uses the HTML and CSS codes with Javascript codes. Bootstrap contains open source SVG icon library, which is the most used library now a days for the development of the application which contains the HTML and CSS code with the javascript code.

Angular/React are advance Javascript framework widely used top product based company like google or Microsoft for the development of the product.

```
import React from 'react';

class Person extends React.Component{
  constructor(props) {
    super(props);
    this.state = {
      age:0
    this.incrementAge = this.incrementAge.bind(this)
  }

  incrementAge(){
    this.setState({
      age:this.state.age + 1;
    });
  }

  render(){
    return(
      <div>
        <label>My age is: {this.state.age}</label>
        <button onClick={this.incrementAge}>Grow me older !!<button>
      </div>
    );
  }
}

export default Person;
```

```
import React from 'react';

class App extends React.Component {
  constructor(props) {
    super(props);

    // We declare the state as shown below

    this.state = {
      x: "This is x from state",
      y: "This is y from state"
    }
  }
  render() {
    return (
      <div>
        <h1>{this.state.x}</h1>
        <h2>{this.state.y}</h2>
      </div>
    );
  }
}
export default App;
```

Class Type Components

```
class Cat extends React.Component {
  constructor(props) {
    super(props);

    this.state = {
      humor: 'happy'
    }
  }
  render() {
    return(
      <div>
        <h1>{this.props.name}</h1>
        <p>
          {this.props.color}
        </p>
      </div>
    );
  }
}
```

Angular/React are open source framework of the javascript widely used for the development of the web based application.

Cloud is top trending technology in the market mostly used by the most of the Top information technology company like TCS,Paymentus, Wipro and many more for the hosting of the application and websites.

```PowerShell
$listOfEvents = New-Object -TypeName 'System.Collections.Generic.List[Amazon.CloudWatchLogs.Model.Input

$logEntry1 = New-Object -TypeName 'Amazon.CloudWatchLogs.Model.InputLogEvent'
$logEntry1.Message = 'Message 1'
$logEntry1.Timestamp = (Get-Date).ToUniversalTime()
$null = $listOfEvents.Add($logEntry1)

$logEntry2 = New-Object -TypeName 'Amazon.CloudWatchLogs.Model.InputLogEvent'
$logEntry2.Message = 'Message 2'
$logEntry2.Timestamp = (Get-Date).ToUniversalTime()
$null = $listOfEvents.Add($logEntry2)

$splat = @{
    LogEvent      = $listOfEvents
    LogGroupName  = $logGroupName
    LogStreamName = $logStreamName
    SequenceToken = $sequenceToken
}
$sequenceToken = Write-CWLLogEvent @splat
```

In cloud market in todays market we have three leading top players AWS,Azure,GCP, these all three are the cloud service provider, have almost same services but, with the different name but, the work is the totally some.

Code Sample: Create an Amazon CloudWatch Log Stream

```PowerShell
# Uses the "logs:CreateLogStream" IAM Policy.
$splat = @{
    LogGroupName = 'MyLogGroup'
    LogStreamName = 'MyLogStream'
}
New-CWLLogStream @splat
```

I have done one AWS certification which is AWS certified solution architect associate in the year of the 2020.

Week 14(continuity)

MFPE

Project building

This is the last phase of the internship in the Paymentus, which ends by the project making and submitting the project to the mentor for the final verification and evaluation.

Project is yet not assigned to us in the internshipm that's why I am making this internship report for the submission of the alternative of the project work so that our final semester result can be declare on time and we all get the result on time.

In the whole till now we learned various technologies related to the application development because my domain was the java developer so, I was trained like java developer by the Paymentus.

In the internship we learned this technology:

HTML and CSS

Java

JavaScript

React

DynamoDB

Internal Frameworks

AWS

Bootstrap

Chapter -3

Conclusion

3.1 Conclusion

I am still on the way doing my internship with the Paymentus and I have learned so much from this internship offered by the internship, rally helped me in shaping my personality and equipping me with the knowledge of this technologies.

My Final internship project is still remaining with Paymentus internship and I will give my best in doing the internship project.

I like to thanks in advance to the coaches, SDM, mentor and trainer of Paymentus who guided me through the whole journey of my internship in Paymentus and solved all my doubts during the internship. The Coaches, SDM, Mentor and trainer were all of good nature and at every moment helped me when I was doing wrong and shaped me during my whole internship.

Specially my mentor gave his more effort during the internship and passed our all query to the higher authority in the company whether it was related to the reattempt of the assessment, technical issue faced in the assessment or providing extra time to complete the work.

Reference

- Paymentus Hand book
- Internship experience
- Assessment
- Paymentus internship curriculum

ajay_singh_major

ORIGINALITY REPORT

SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS
2%	2%	0%	1%

PRIMARY SOURCES

shanse.biz 1 Internet Source	2%

Exclude quotes	On	Exclude matches	Off
Exclude bibliography	On		