Weekly Diary

For

Industrial Training

Name of Industry: MaverTech Technologies

Industrial Training Duration: 4 weeks **from:** 03/06/2024 **to:** 30/06/2024

Trainer: Sagar Jate

Designation of Trainer: Project Manager

Student: Pradhumny Krishnat Vadar

Roll No:226064 **Branch of Engineering:** Information Technology

Name of Polytechnic: Government Polytechnic Kolhapur.

Special Instructions to Students:-

1. Write down the daily activities on the same day
2. Make note of the important actual activity/activities only.
3. Summarize at the weekend.
4. Add extra sheets if needed for daily or weekly activity report.

Web Application Development

Week 1 -: Form 03/06/2024 Saturday To 07/06/2023 Sunday

Expected work -: Actual work to be performed in this week

Days	Activities carried out
Monday (03/06/2024)	○ Introduction ○ To understand system design flow ○ System design is the process of defining the architecture, interfaces, and data for a system that satisfies specific requirements. System design meets the needs of your business or organization through coherent and efficient systems. It requires a systematic approach to building and engineering systems. A good system design requires us to think about everything, from infrastructure all the way down to the data and how it's stored. • Work flow assignment • To understand Team structure how it working in the industrial organization. • We have learned what PDCA cycle. • PDCA is stand for Plan-do-check-act
Tuesday (04/06/2024)	1. 1) JDK 2) Eclipse/Intellij Idea 3) Node JS 4) Visual studio 5) MySQL • MySQL CRUD Operation 2. 1) How to create the database 2) How to create the table 3) How to insert the data 4) How to update the data 5) How to delete the data
Wednesday (05/06/2024)	1. To understand build tools(Maven) 2. To understand why build tools is important while making the projectException Handling 3. To understand why exception handling is important

Thursday (06/06/2024)	• To creation of the Backend Project structure • To understand the all the layer packages like controller , service , repository, configuration and utility method etc. • To understand spring boot project in the maven • To understand how the Bean Creation and configure itself in the project • To understand why bean creation is important and to make application as loosely couple 1.
Friday (07/06/2024)	• To Performed operations on database such as Create, update, delete, insert, etc. through code. • To understand how to communicate with database through code. • Installation of Postman(Testing tool) • Use of Spring tool suite(STS) • Installation of GitHub repository. • How to use git hub • Use of github in industry • Explanation and practical of Commands which are use on git bash like git clone ,git push git pull etc.One to One Solving of Problem created in installation • Explanation of Points which are not clearly understood by student • How to use postman to test the API's

Weekly summarization of above activities:

1) System design helps us define a solution that meets the business requirements. It is one of the earliest decisions we can make when building a system. Often it is essential to think from a high level as these decisions are very difficult to correct later. It also makes it easier to reason about and manage architectural changes as the system evolves.

2) To understand which build tools using for making any application java like maven and gradle

3) To understand CRUD operation the mysql for manipulation purpose

4) Why need for the Exception handling in the project

The primary objective of any java **project** structure is to assist you in: Writing clean and legible code Creating reusable code components and modules throughout the application Avoiding unnecessary repetition Incorporating new features seamlessly into the existing code.

Signature of Internship Mentor

Signature of Industrial Supervisor

Week 2 -: Form 10/06/2024 Monday to 14/06/2024 Friday

Expected work -: Actual work to be performed in this week

Days	Activities carried out
Monday (10/06/2024)	Coding of the few layer packages like controller, service , repository etc according to their use. • Explanation of few annotations which are mostly used in all the software project • ACID properties • How to create postman collection
Tuesday (11/06/2024)	• Coding of the few layer packages like service , repository etc according to their use • Practically Testing of API by using postman • Standard way to handle Exception
Wednesday (12/06/2024)	• Performed operations on database such as Create, update, delete, insert, etc. through code. • To understand how to communicate with database through code. • Installation of Postman(Testing tool)

Thursday (13/06/2024)	• Use of Spring tool suite(STS) • Installation of GitHub repository.
Friday (14/06/2024)	• Installation and Use of Intellij Idea. • Execution of various git commands on Gitbash.(git clone path, git checkout branch name, git pull ,etc.) • Revision of all the contents which are covered previously. • Discussion on the topics which were not understood to us and problems regarding installation of software. •

Weekly summarization of above activities:

In this lecture we have understand the project layer and some related the annotation which we need to configure in the spring boot project. Also, how we can locally tested all the rest services.

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Week 3 -: Form 17/06/2024 Monday to 21/06/2024 Friday

Expected work -: Actual work to be performed in this week

Days	Activities carried out
Monday (17/06/2024)	• Implementation of different layers to develop an application such as Controller, service, model, etc. • Overview of Exception handling. • Retrieving data from data source using Postman.Handling runtime exceptions.
Tuesday (18/06/2024)	• Handling runtime exceptions. • Managed exceptions using various annotations.(@ControllerAdvice, @ExceptionHandler) • Explanation of Transaction-ACID properties.
Wednesday (19/06/2024)	• Implementation of following micro services. 1. Order Service 2. Payment Service
Thursday (20/06/2024)	• Make connection between Order Service and Payment Service. • Debugging process. Introduction of Eureka Server (Server Registry).
Friday (21/06/2024)	• How we can used rest template for the connection. • How can we configure rest template beans in the configuration layer? • What is used of the lazy bean creation • Introduction of Cloud Gateway. • How we create Cloud Gateway? • How we handle Gateway? Use of Cloud Gateway.

Weekly summarization of above activities:-

Micro services architecture divides an application into logical layers and physical tiers. Layers are a way to separate responsibilities and manage dependencies. Each layer has a specific responsibility. A higher layer can use services in a lower layer, but not the other way around. Tiers are physically separated, running on separate machines. A tier can call to another tier directly, or use asynchronous messaging. Although each layer might be hosted in its own tier, that's not required. Several layers might be hosted on the same tier. Physically separating the tiers improves scalability and resiliency and adds latency from the additional network communication.

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Week 4 : Form 24/06/2024 Monday to 28/06/2024 Friday

Expected work -: Actual work to be performed in this week

Days	Activities carried out
Monday (24/06/2024)	• Coding of Order config server • Putting of all static code from previously developed different services • How config server is used to maintain static code • Practical demonstration of config server by connecting all laptops to the server • What is the use of AWS and to create account on AWS • Introduction to EC2 instance • How to use S3 bucket • Code to upload,download,and delete file through browser and postman From S3 bucket • How S3 bucket used in industry

Tuesday (25/06/2024)	• To start the online shopping portal application • This application is need to make below stack 1) Spring boot 2) Rest services 3) MySQL 4) React js 5) Bootstrap HTML, CSS , JSP, JSTL • We have create all the related packages like controller, repository, services , dto, configuration..etc • Also, we have added all the supporting packages which we need to develop application like react js, bootstrap..etc • We have create webapps structure for the view purposeWe have added below started dependencies for the making application 1) Web 2) Data JPA 3) Mysql connector 4) Tomcat jasper 5) Devtools 6) JSTL

Wednesday (26/06/2024)	• To create below the controller 1) Page Controller 2) Index Controller 3) Customer Controller 4) Admin Controller 5) JSONController 6) CartLine ControllerTo create service , repository and some utlity layer as below • CartLine services • CustomerServices
Thursday (27/06/2024)	1. In this session, we have configure all backend code with database and test all the rest endpoint with the help of postman 2. Also, we have isolated all the two parts as like customer and admin 3. We have created one main jsp page which handling the jsp call 4. We have added JSTL tag for the object managing by the jsp pages 5. We have configure all react js and bootstarp file in the jsp pages 6.
Friday (28/06/2024)	• We have create below view as 1) Sign-up page 2) Login page 3) Admin page • Admin Page: 1) User List 2) Upload Product 3) Manage product list • Login Page: 1) Product List 2) Order purchase 3) User profile

	• Final session, we have tested all the application • We have done regression testing for running application

Weekly summarization of above activities:

In this week, we have started one sample project and we have understand how we can make application from the spring initilizer and how we can set jdk and build tools. Also, those started dependencies we need how we can added. Finally, we have done one application with the help of we are understand where we will used this all stack and how we can test itself.

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