ASE Training

S. Sangeevan

RUMEX (PVT) LTD

Training Timeline

1
Linux Basics & Install

- Linux basic commands
- Vim tool
- Install softwares

2
Build Tool, IDEA & GIT

- Maven
- IDEA
- GIT

3
Spring Boot, JPA

- Spring boot web app
- JDBC repo
- Autowrite JDBC repo

4
REST

- Create REST APIs
- Install postman & Create postman collection
- Write test client

5
MySQL, TDD, Java Coding Standards

- MySQL
- TDD
- Java coding standards
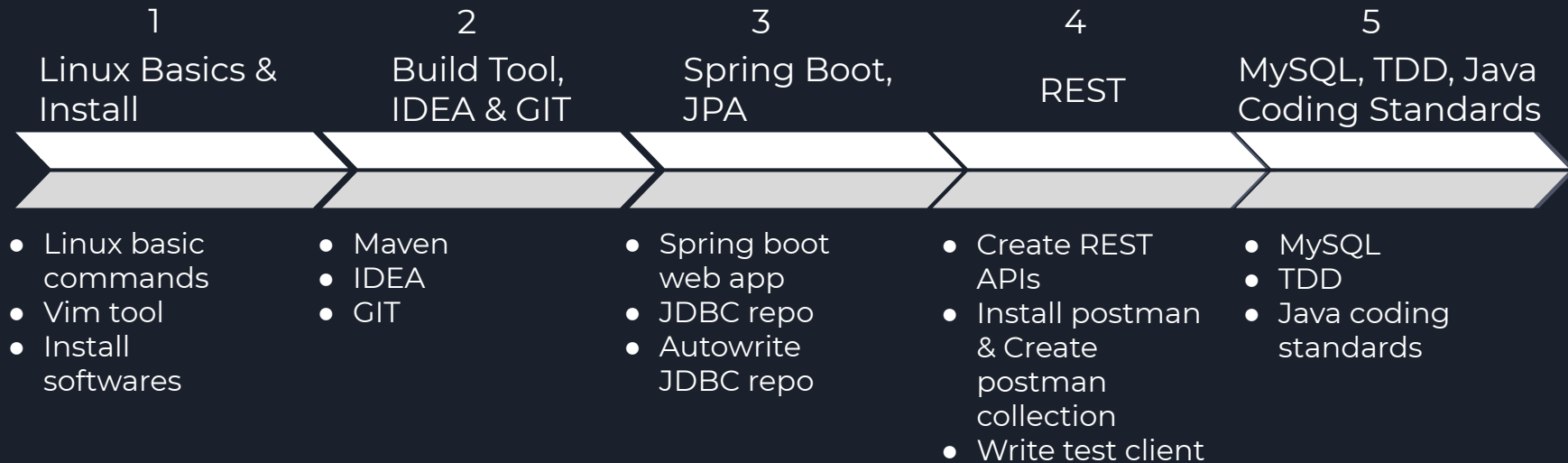
# Linux Basic Commands

- Linux commands are run in the terminal provided by the linux system.

- Here are some example useful linux commands.
  - ls   -   Show all items
  - cd   -   Change directory
  - mkdir   -   Create new directory
  - rm   -   Delete file
  - cp   -   Copy file

  - [Click here for view Mind map for linux basic commands.](#)

Vim Tool

- Vim is a highly configurable text editor built to make creating and changing any kind of text very efficient.

- Vim has many different editing modes like Command mode, Insert mode, Visual mode and etc.

- Vim tool plugin can be installed in to the IDE to get use of Vim shortcut commands.

- Here are some example useful commands for Vim editor.
  - da{   -   Delete content and brackets
  - ci{   -   Change inside brackets
  - yi{   -   Yank inside brackets
  - vi{   -   Select inside brackets

- Click here for view Vim tool training project repository.

Install Softwares

- Java
  - Click here for view Java training project repository.

- MySQL

- Maven

- Vim

- Git

- Intellij IDEA

- MySQL Workbench

- Postman
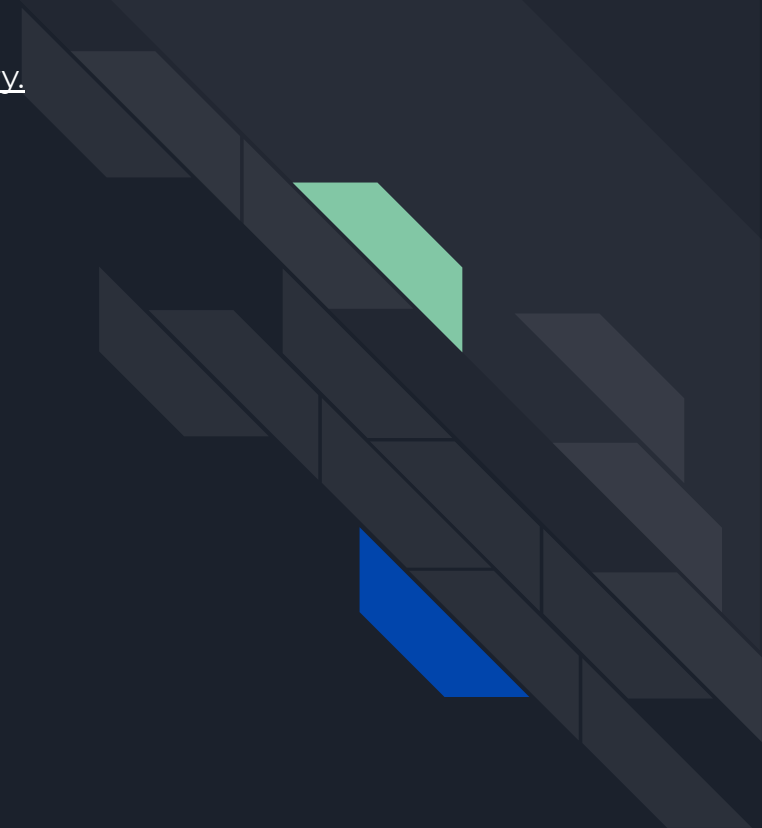
Maven

- Maven is a build automation tool used for java projects.

- Based on project object model (POM) Maven can manage the project's build, reporting and documentation.

- It has two modes line interactive mode and non-interactive mode.

- Here are some example useful commands for Maven.
  - mvn install
  - mvn compile
  - mvn test
  - mvn clean
  - mvn site

  - Click here for view Mind map for maven commands.

- Click here for view Maven training project repository.

IntelliJ IDEA

- Intellij IDEA is an integrated development environment for developing computer software.

- Additional plugins also can be installed to get use of them inside the IDE.

- Here are some example useful shortcuts for IntelliJ IDEA.
    - Ctrl + /   -   Add or remove comment
    - Double shift   -   Search everywhere
    - Alt + Insert   -   Generate
    - Ctrl + b   -   Go to declaration
    - Alt + F7   -   Find usage

    - <u>Click here for view Mind map for IntelliJ IDEA shortcuts.</u>

- <u>Click here for view IntelliJ IDEA training project repository.</u>

GIT

- Git is a free open source version control system.

- Here are some example useful commands for Git.
  - git init
  - git clone
  - git pull
  - git push
  - git add
  - git checkout
  - git commit
  - git branch
  - git status
  - git rebase

  - Click here for view Mind map for Git commands.

- Click here for view Git training project repository.
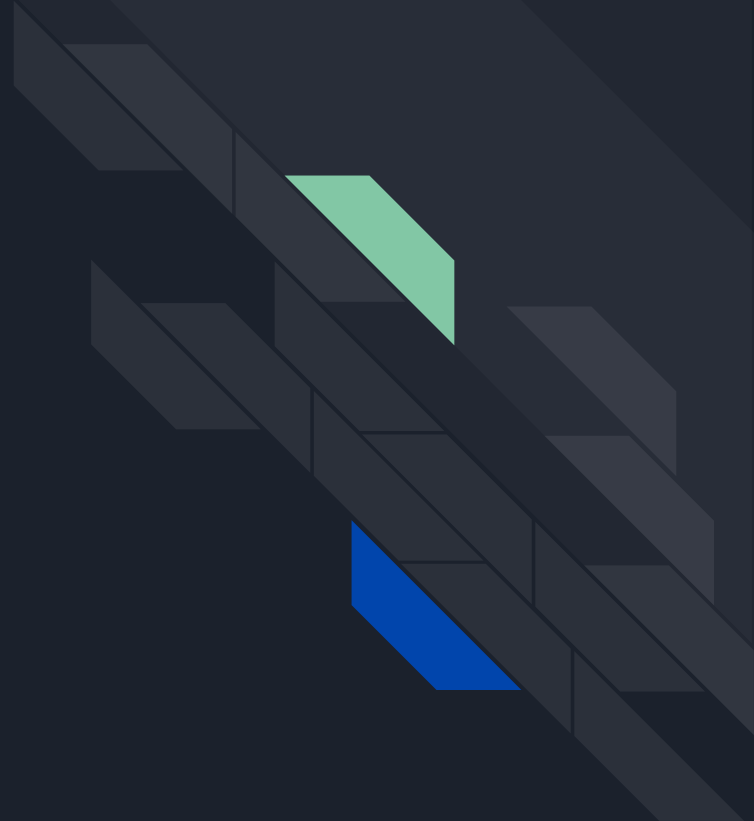
Spring Boot

- Spring boot is an open source Java based framework.

- Spring boot makes it easy to create stand-alone, production-grade Spring based applications.

- Spring boot mostly used to develop REST APIs.

- Click here for view Spring boot training project repository.

JDBC

- JDBC is an API for Java, and it defines how a client may access a database.

- Spring Data JDBC helps to implement JDBC based repositories.

- Click here for view JDBC training project repository.

JPA

- JPA is a java specification for accessing and managing data between java objects and relational databases.

- Spring Data JPA allows to build repositories based on spring and JPA.

- JPQL is in JPA specification and developed based on SQL syntax.

- Click here for view JPA training project repository.

Rest API

- REST API is an application programming interface that conforms to the constraints of Representational State Transfer architectural style and allows for interact with RESTful web services.
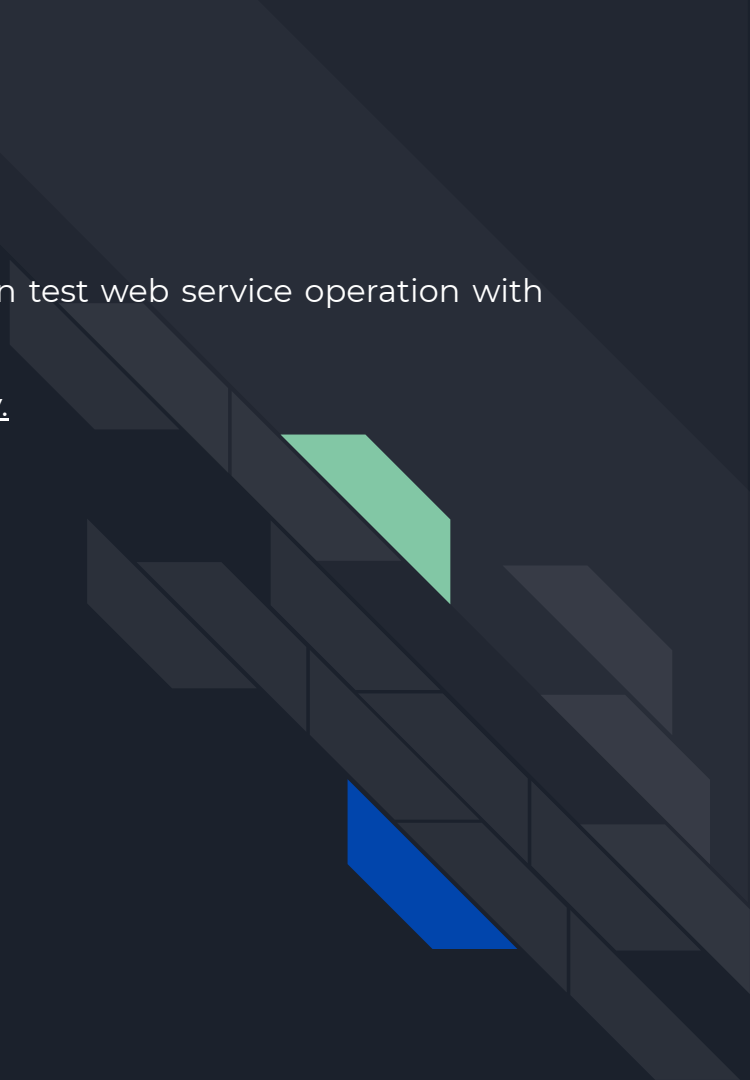
Postman

- Postman is an API client that makes easy to create, share, test and document APIs.

- Click here for view Postman collection of training project.

Test Client

- Test client provides a user interface through which can test web service operation with parameter values.

- [Click here for view Test client training project repository.](#)

MySQL

- MySQL is an open source relational database management system.

- To interact with database, MySQL has commands like SELECT, CREATE, UPDATE, DELETE and etc.

- Database normalization is a process of structuring a database.
  - Click here for view Mind map for database normalization.

- MySQL Workbench is a visual database design tool.

- Click here for view MySQL training project repository.

TDD

- Test Driven Development is a software development process that relies on the repetition of a very short development cycle.

- So here the code after modification has to be passed the test which previously designed.

- Junit framework and AssertJ library can be used for this process.

- Using maven, test report also can be generated for written tests.

- Click here for view TDD training project repository.

Java Coding Standards

- Java code conventions are important to programmers because of improve readability and maintainability.

- Here are some example java coding standards.
    - First letter of each word in class name capitalized.
    - Package name should be all lowercase letters.
    - Method names start with lowercase letter and capitalize each internal word.

    - Click here for view Mind map for java coding standards.

- Click here for view java coding standards training repository.

Thank you!