Micro-Service

* SOA – Service Oriented Architecture
* MSA – Micro-Service Architecture
* Web Service
* Types of Web Service – SOAP & REST
* SOAP – Simple Object Access Protocol
* REST – Representational State Transfer
* SOAP uses WSDL – Web Service Definition/Description Language (XML) – It mainly uses XML payloads (data)
* REST re-uses http methods for communication & operations
* Web API/ API Development
* Using Spring Boot & Java Lang.
* Monolith Application (Single Rest based application with all the services with single database)
* URL & URI
* Endpoints
* Modularity – basepackage, controllers, model/entities, repositories, services, exceptions, configurations, utilities
* Spring Data JPA (It integrates hibernate with Spring)

Steps to Configure lombok

1. Download Lombok jar (<https://projectlombok.org>) – 2 mb jar
2. Open the jar file by double clicking it (open a command prompt and type “java -jar lombok.jar”
3. Lombok will automatically scan the Eclipse/STS IDE in your system (You can also manually specify the location of your IDE if needed by clicking specify location button)
4. Then click “Install/update” button and Quit the installer.
5. Restart the IDE and make sure the Lombok.jar file is present in the project where you want to use it.

CREATE TABLE `tcs1`.`user\_role` (

`id` INT NOT NULL AUTO\_INCREMENT,

`user\_id` INT NULL,

`role\_id` INT NULL,

PRIMARY KEY (`id`),

INDEX `uidfk\_idx` (`user\_id` ASC) VISIBLE,

INDEX `ridfk\_idx` (`role\_id` ASC) VISIBLE,

CONSTRAINT `uidfk`

FOREIGN KEY (`user\_id`)

REFERENCES `tcs1`.`tbl\_user` (`id`)

ON DELETE NO ACTION

ON UPDATE NO ACTION,

CONSTRAINT `ridfk`

FOREIGN KEY (`role\_id`)

REFERENCES `tcs1`.`tbl\_role` (`id`)

ON DELETE NO ACTION

ON UPDATE NO ACTION);

Composite Primary key – Primary Key referring more than one column.

Foreign Key – It allows duplicate values but make sure the value is present in the base table.

Data type of foreign key and primary key of reference table should be similar.

<https://hellokoding.com/jpa-hibernate-composite-primary-key-entity-mapping-example-with-mysql/>

<https://www.amitph.com/spring-data-jpa-embeddedid/>

<https://www.jpa-buddy.com/blog/the-ultimate-guide-on-composite-ids-in-jpa-entities/>