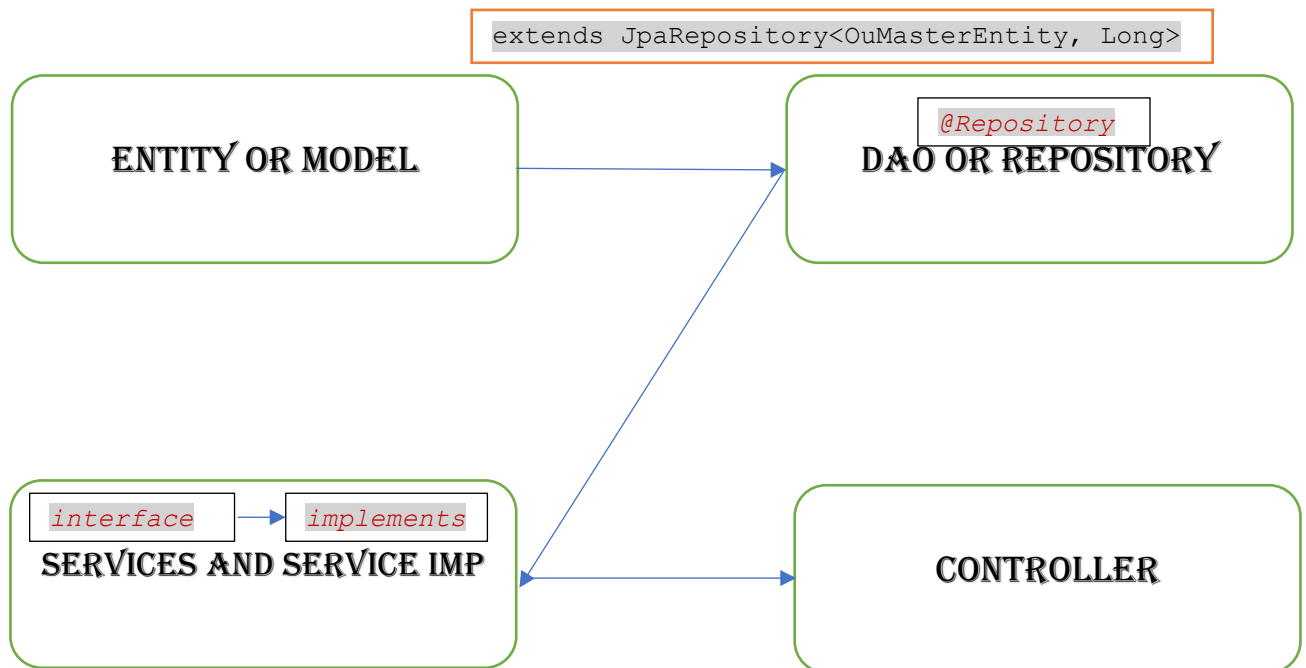


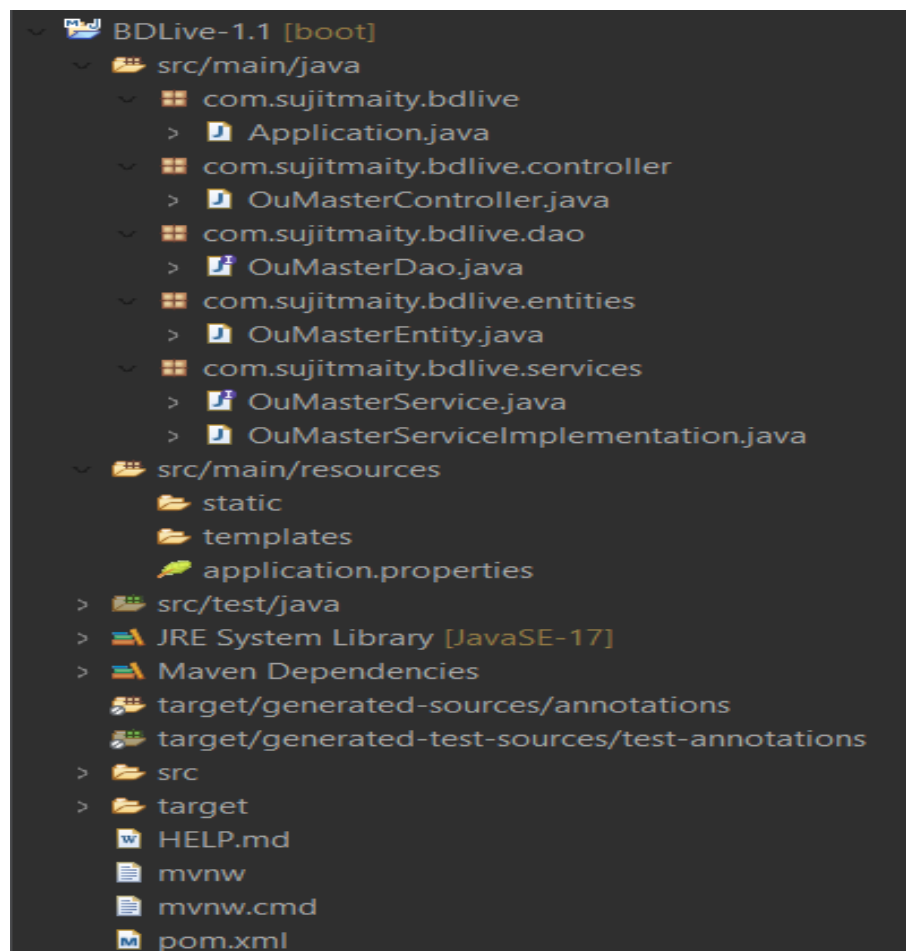
Process for creating Web services Apis

Sujit Shibaprasad Maity

1) Process Flow:



2) Package:



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3) Database Configuration:

Application.properties:

##connect to database

```
spring.datasource.driver-class-name=org.postgresql.Driver
spring.datasource.url=jdbc:postgresql://localhost:5432/BharatBillPay
spring.datasource.username=postgres
spring.datasource.password=Sujit*****
server.port=9000
```

###JPA Config

```
spring.jpa.properties..hibernate.dialect =
org.hibernate.dialect.PostgreSQLDialect
spring.jpa.hibernate.ddl-auto=update
spring.jpa.show-sql=true
spring.jpa.properties.hibernate.format_sql=true
```

```
1
2  ##connect to database
3  spring.datasource.driver-class-name=org.postgresql.Driver
4  spring.datasource.url=jdbc:postgresql://localhost:5432/BharatBillPay
5  spring.datasource.username=postgres
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7  server.port=9000
8
9  ###JPA Config
10 spring.jpa.properties..hibernate.dialect = org.hibernate.dialect.PostgreSQLDialect
11 spring.jpa.hibernate.ddl-auto=update
12 spring.jpa.show-sql=true
13 spring.jpa.properties.hibernate.format_sql=true
14
```

4) Package and Class Implementation:

Entity or Model Class

```
package com.sujitmaity.bdlive.entity;
```

```
import java.sql.Timestamp;
import jakarta.persistence.Column;
import jakarta.persistence.Entity;
import jakarta.persistence.GeneratedValue;
import jakarta.persistence.GenerationType;
import jakarta.persistence.Id;
import jakarta.persistence.Table;
import lombok.AllArgsConstructor;
import lombok.Getter;
import lombok.NoArgsConstructor;
import lombok.Setter;
```

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```
import lombok.ToString;
@Getter
@Setter
@ToString
@NoArgsConstructor
@AllArgsConstructor
@Entity
@Table(name = "user_master")
public class UserMasterEntity {

    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    @Column(name = "userId")
    Long userId;

    @Column(name = "userName")
    String userName;

    @Column(name = "userPassword")
    String userPassword;

    @Column(name = "userEmail")
    String userEmail;

    @Column(name = "userMobile")
    String userMobile;

    @Column(name = "userActivationStatus")
    boolean userActivationStatus;

    @Column(name = "userActivationTime")
    Timestamp userActivationTime;

    public Long getUserId() {
        return userId;
    }

    public void setUserId(Long userId) {
        this.userId = userId;
    }

    public String getUserName() {
        return userName;
    }

    public void setUserName(String userName) {
        this.userName = userName;
    }

    public String getUserPassword() {
```

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```
        return userPassword;
    }

    public void setUserPassword(String userPassword) {
        this.userPassword = userPassword;
    }

    public String getUserEmail() {
        return userEmail;
    }

    public void setUserEmail(String userEmail) {
        this.userEmail = userEmail;
    }

    public String getUserMobile() {
        return userMobile;
    }

    public void setUserMobile(String userMobile) {
        this.userMobile = userMobile;
    }

    public boolean isUserActivationStatus() {
        return userActivationStatus;
    }

    public void setUserActivationStatus(boolean userActivationStatus) {
        this.userActivationStatus = userActivationStatus;
    }

    public Timestamp getUserActivationTime() {
        return userActivationTime;
    }

    public void setUserActivationTime(Timestamp userActivationTime) {
        this.userActivationTime = userActivationTime;
    }

    public UserMasterEntity(Long userId, String userName, String userPassword, String
userEmail, String userMobile,
        boolean userActivationStatus, Timestamp userActivationTime) {
        super();
        this.userId = userId;
        this.userName = userName;
        this.userPassword = userPassword;
        this.userEmail = userEmail;
        this.userMobile = userMobile;
        this.userActivationStatus = userActivationStatus;
        this.userActivationTime = userActivationTime;
    }
}
```

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```

    }

    public UserMasterEntity() {
        super();
    }

    @Override
    public String toString() {
        return "UserMasterEntity [userId=" + userId + ", userName=" + userName +
", userPassword=" + userPassword
        + ", userEmail=" + userEmail + ", userMobile=" + userMobile
+ ", userActivationStatus="
        + userActivationStatus + ", userActivationTime=" +
userActivationTime + "]";
    }
}

```

DAO or Repository Class

```

package com.sujitmaity.bdlive.dao;

import org.springframework.data.jpa.repository.JpaRepository;
import org.springframework.stereotype.Repository;

import com.sujitmaity.bdlive.entity.UserMasterEntity;

@Repository
public interface UserMasterDao extends JpaRepository<UserMasterEntity, Long> {

}

```

Services and Service Implementation Class

```

package com.sujitmaity.bdlive.services;

import java.util.List;
import java.util.Optional;

import com.sujitmaity.bdlive.entity.UserMasterEntity;

public interface UserMasterService {

    List<UserMasterEntity> findAllUser();

    Optional<UserMasterEntity> findById(Long userId);

    UserMasterEntity saveUser(UserMasterEntity userMaster);

}

```

Service Implementation:

```
package com.sujitmaity.bdlive.services;
import java.util.List;
import java.util.Optional;
import org.springframework.stereotype.Service;
import com.sujitmaity.bdlive.dao.UserMasterDao;
import com.sujitmaity.bdlive.entity.UserMasterEntity;

@Service
public class UserMasterServicesImplement implements UserMasterService{

    private final UserMasterDao userdao ;

    public UserMasterServicesImplement(UserMasterDao userdao) {
        this.userdao = userdao;
    }

    @Override
    public List<UserMasterEntity> findAllUser() {

        return userdao.findAll() ;
    }

    @Override
    public Optional<UserMasterEntity> findById(Long userId) {

        return userdao.findById(userId);
    }

    @Override
    public UserMasterEntity saveUser(UserMasterEntity userMaster) {

        return userdao.save(userMaster);
    }

}
```

Controller Class

```
package com.sujitmaity.bdlive.controller;

import java.util.List;

import java.util.Optional;

import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.PostMapping;
```

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```
import org.springframework.web.bind.annotation.RequestBody;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RestController;
import com.sujitmaity.bdlive.entity.UserMasterEntity;
import com.sujitmaity.bdlive.services.UserMasterService;

@RestController
@RequestMapping("/userMaster")
public class UserMasterController {

    private final UserMasterService userService;

    public UserMasterController(UserMasterService userService) {
        this.userService = userService;
    }

    @GetMapping("/userall")
    public List<UserMasterEntity> findAllUser(){
        return userService.findAllUser();
    }

    @GetMapping("/{userId}")
    public Optional<UserMasterEntity> findById(@PathVariable("userId") Long
userId){
        return userService.findById(userId);
    }

    @PostMapping
    public UserMasterEntity saveUser(@RequestBody UserMasterEntity
userMasterEntity) {
        return userService.saveUser(userMasterEntity);
    }
}
```