

Steps to Implement the Micro-Service Application using IntelliJ IDE with JDK 1.7 and above.

Problem statement is clearly explained in the class room.

1. Create Maven Project with the spring boot dependency or Use <https://start.spring.io> site to create the blank projects with Web dependency .
2. Repeat above process to create three projects, Movie-Catalog-Service, Movie-info-Service and Rating service.
3. Code for all three classes are attached below.
4. Open three projects in three different windows and add the Java classes below in appropriate packages. (package name are there in the .java files)
5. Create those package.
6. Build and Deploy those project independently.
7. To test this projects you can write appropriate uri directly in the browser.

- Java files for the Movie-Catalog-Service Project . Movie.java, Rating.java and CatalogItem.java

```
package io.microservices.moviecatalogservice.models;
```

```
public class Movie {  
  
    private String movieId;  
    private String movieName;  
  
    public Movie() {  
  
    }  
    public String getMovieId() {  
        return movieId;  
    }  
  
    public void setMovieId(String movieId) {  
        this.movieId = movieId;  
    }  
    public String getMovieName() {  
        return movieName;  
    }  
    public void setMovieName(String movieName) {  
        this.movieName = movieName;  
    }  
}
```

```
package io.microservices.moviecatalogservice.models;
```

```
public class Rating {
    private String movieId;
    private int ratings;

    public Rating() {
    }

    public Rating(String movieId, int ratings) {
        this.movieId = movieId;
        this.ratings = ratings;
    }

    public String getMovieId() {
        return movieId;
    }

    public void setMovieId(String movieId) {
        this.movieId = movieId;
    }

    public int getRatings() {
        return ratings;
    }

    public void setRatings(int ratings) {
        this.ratings = ratings;
    }
}
```

```
package io.microservices.moviecatalogservice.models;
```

```
public class CatalogItem {
    private String movieName;
    private String desc;
    private int rating;

    public CatalogItem(String movieName, String desc, int rating) {
        this.movieName = movieName;
        this.desc = desc;
        this.rating = rating;
    }
}
```

```

    }

    public String getMovieName() {
        return movieName;
    }

    public void setMovieName(String movieName) {
        this.movieName = movieName;
    }

    public String getDesc() {
        return desc;
    }

    public void setDesc(String desc) {
        this.desc = desc;
    }

    public int getRating() {
        return rating;
    }

    public void setRating(int rating) {
        this.rating = rating;
    }
}

```

```

package io.microservices.moviecatalogservice.resources;

```

```

import io.microservices.moviecatalogservice.models.CatalogItem;
import io.microservices.moviecatalogservice.models.Movie;
import io.microservices.moviecatalogservice.models.Rating;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RestController;
import org.springframework.web.client.RestTemplate;

```

```

import java.lang.reflect.Array;
import java.util.Collections;
import java.util.*;
import java.util.stream.Collectors;

```

```

@RestController
@RequestMapping("/catalog")
public class MovieCatalogService {

```

```

@RequestMapping("/{userId}")
public List<CatalogItem> getCatalog(@PathVariable("userId") String userId)
{
    // find all the rated movies
    List<Rating> ratings = Arrays.asList(
        new Rating("1234",4),
        new Rating("5678",4)
    );

    RestTemplate restTemplate = new RestTemplate();
    RestTemplate restTemplate1 = new RestTemplate();

    Rating rating = restTemplate.getForObject("http://localhost:8086/ratingsdata/12",
Rating.class);
    Movie movie =
restTemplate.getForObject("http://localhost:9097/movies/"+rating.getMovieId(), Movie.class);
    CatalogItem ct = new
CatalogItem(movie.getMovieName(),"Education",rating.getRatings());
    return Collections.singletonList(ct);

}
}

```

- Java files for the Movie-Info-Service Project . Movie.Java and MovieResource.java
package io.microservice.movieinfoservice.models;

```

public class Movie {

    private String movieId;
    private String movieName;

    public Movie(String movieId, String movieName) {
        this.movieId = movieId;
        this.movieName = movieName;
    }

    public String getMovieId() {
        return movieId;
    }

    public void setMovieId(String movieId) {
        this.movieId = movieId;
    }
}

```

```

    public String getMovieName() {
        return movieName;
    }

    public void setMovieName(String movieName) {
        this.movieName = movieName;
    }
}

-----

package io.microservice.movieinfoservice.resurces;

import io.microservice.movieinfoservice.models.Movie;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RestController;

@RestController
@RequestMapping("/movies")
public class MovieResource {
    @RequestMapping("/{movieId}")
    public Movie getMovieInfo(@PathVariable("movieId") String movieId){

        return new Movie(movieId, "Super");
    }
}
*****

```

- Java files for the Rating-data-service Project . Rating.Java and RatingResource.java

```

package io.microservice.Ratingdataservice.models;

public class Rating {
    private String movieId;
    private int ratings;

    public Rating(String movieId, int ratings) {
        this.movieId = movieId;
        this.ratings = ratings;
    }

    public String getMovieId() {
        return movieId;
    }

    public void setMovieId(String movieId) {

```

```
        this.movieId = movieId;
    }
```

```
    public int getRatings() {
        return ratings;
    }
```

```
    public void setRatings(int ratings) {
        this.ratings = ratings;
    }
}
```

```
package io.microservice.Ratingdataservice.resources;
```

```
import io.microservice.Ratingdataservice.models.Rating;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RestController;
import org.springframework.web.context.annotation.RequestScope;
```

```
@RestController
@RequestMapping("/ratingsdata")
public class RatingDataResource {
    @RequestMapping("/{movieId}")
    public Rating getRatings(@PathVariable("movieId")String movieId){
        return new Rating(movieId,4);
    }
}
```