

Experiment - 9

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Aim: Create Microservice based application using Spring Boot.

Generate JAR file on start-spring.io

Project : Maven Project

Language : Java

Spring Boot : 2.1.8.

Project Meta data

Group : io.microservice

Artifact: movie-catalog-service

:

Packaging : JAR

Java : 11

Dependencies → Add Spring web

Generate - ctrl + A

// Same procedure for movie-info-service and movie-rating-service.

⊛ movie-info-service

* Movie.java

public class Movie

{

private String movieId;

private String movieName;

public String getMovieId()

{ return movieId; }

public void setMovieId(String movieId)

{ this.movieId = movieId; }

public void setMovieName(String movieName)

{ this.movieName = movieName; }

public String getMovieName()

{ return movieName; }

public Movie(String movieId, String movieName)

{

this.movieId = movieId;

this.movieName = movieName;

}

}

* MovieResources.java

@RestController

@RequestMapping("/movies")

public class MovieResources

{

@RequestMapping("/{movieId}")

public Movie getMovies (@PathVariable("movieId")
String movieId)

{

Movie m = new Movie (~~movie~~ "1", "Super30");

return m;

}

}

* MovieInfoServiceApplication.java

@SpringBootApplication

public class MovieInfoServiceApplication

{

public static void main (String[] args)

{

SpringApplication.run (MovieInfoServiceApplication.class, args);

}

}

* application.properties

server.port = 9092

movie-rating-service

* Rating.java

```
public class Rating
```

```
{  
    private String movieId;
```

```
    private int rating;
```

```
    public Rating (String movieId, int rating)
```

```
{
```

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

```
        this.rating = rating;
```

```
}
```

```
    public String getMovieId()
```

```
{  
        return movieId;
```

```
    public void setMovieId (String movieId)
```

```
{  
        this.movieId = movieId;
```

```
    public int getRating()
```

```
{  
        return rating;
```

```
    public void setRating (int rating)
```

```
{  
        this.rating = rating;
```

```
}
```


* RatingDataSource.java

@RestController

@RequestMapping("/ratingdata")

public class RatingDataSources

{

@RequestMapping("/{movieid}")

public Rating getRatings (@PathVariable ("movieid")
String movieid)

{

Rating r = new Rating (movieid , 4);

return r;

}

}

* MovieRatingServiceApplication.java.

@SpringBootApplication

public class MovieRatingServiceApplication

{

public static void main (String[] args)

{

SpringApplication.run (MovieRatingServiceApplication.
class, args);

}

}

* application.properties

server.port = 9093

⑧ movie-catalog-service

* CatalogItem.java

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

// getter & setter method for name, desc & rating.

* MovieCatalog.java

@RestController

@RequestMapping ("/catalog")

public class MovieCatalog

{

@RequestMapping ("/{userid}")

public List<CatalogItem> getMovies (

@PathVariable ("userid") String userid)

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```
RestTemplate rt = new RestTemplate();
RestTemplate rt1 = new RestTemplate();

movie m = rt.getForObject(
    "http://localhost:9092/movies/1", Movie.class);
Rating rr = rt.getForObject(
    "http://localhost:9093/ratingdata/" + m.getMovieId(),
    Rating.class);

CatalogItem ct = new CatalogItem(m.getMovieName(),
    "Education", rr.getRating());

return Collections.singletonList(ct);
```

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// Movie.java / Rating.java as previously created ...

* application.properties

server.port = 9091

* MovieCatalogServiceApplication.java

@SpringBootApplication

public class MovieCatalogServiceApplication

{
 public static void main (String[] args)

{
 SpringApplication.run (MovieCatalogServiceApplication.
 class, args);

}

OUTPUT

localhost:9092/movies/chintan

```
{ "movieid": "1", "moviename": "super30" }
```

OUTPUT

localhost: 9093 / ratingdata / 1

{"movieid": "1", "rating": 4}

OUTPUT

localhost:9091 / catalog / chintan

```
[{"name": "super30", "desc": "Education",  
  "rating": 4.3}]
```