**Q 1 . What is RestTemplate and its method ?**

Ans : RestTemplate  is the central class within the Spring framework for executing synchronous HTTP requests on the client side.

It is mainly used to consume the webservice . we can use it to implement microservice concept in springboot .

Method :

1. ResponseEntity<T> exchange() : = Execute a specified http method such as get or post and returns a responseentity that contains both the http status code and the resource as an object .

2. getForEntity() : = Execute for get method and returns response

3. getForObject() : = works as getforEntity .

4,. postForEntity() : = works as getForEntity() .

**Q2. When to use post and get method in resttemplate ?**

Ans : **Post method** saves the data but **get method** retrieve the data . So if we need to use the data from other microservice to our microservice then this time we use **post method** with **RestTemplate .**

**Q 3. What is UriComponentBuilder class ?**

**Ans :** A new UriComponentsBuilder class helps to create UriComponents instances by providing fine-grained control over all aspects of preparing a URI including construction, expansion from template variables, and encoding.

Method : build() , fromHttpUrl() , etc

**Q4. What is ObjectMapper ?**

Ans: Jackson library is used to map java objects to json and vice Versa . And at the same time we can use **Gson** to do the same .

EG:

The following statement converts JSON string representing a student into java class representing the Student class .

**This is deserialization**

Student s = new ObjectMapper().readValue(jsonString, Student.class);

The following statement converts student object into json .

**This is serialization**

Student student = new Student(shambhu,34,samara)

String s = new ObjectMapper().writeValueAsString(student);

**5. What is CompletableFuture / Future/ Executors ?**

Ans : It is a class and belongs to java.util.concurent package . It implements **CompletionStage and Future** interface . It is used for asynchronous programming . It runs a taks on a separate thread than main application thread. It notifies the main thread about its progress, completion or failure .

**Can be watched in :**

<https://www.youtube.com/watch?v=3rJBLFA95Io>

(note : We can use this site to generate data like xml json or csv etc ) : <https://mockaroo.com/>

**Q6. What is Pulsor java client or pulsorClient ?**

Ans : We use this client to message deliver . Producer publish message to topics and consumer subscribe .

Producer : Producer writes message to topics .

Consumer : Consumer subscribe to topics and handle message that producers publish to that topics .

For details : https://pulsar.apache.org/docs/en/client-libraries-java/