**6. Spring Boot**

1. What is an API?

Application Programming Interface (API) is used by developer to communicate between software components. API has developed using definitions and protocols.

1. What are http methods?

* GET
* POST
* PUT
* DELETE

1. What are http status codes?

When we send a request from browser to the server, the server will process the request and will send a response to the server. This response contains a status code. The server uses this status code to indicate whether or not that request can be fulfilled.

* 200,201

Indicates that the request processing is success and the server can send the expected response to the user. **200** is the standard response for successful http request. If we use GET method the server response with the expected results. **201** used to indicate that a resource has been successfully created.

* 301

Indicates permanent redirect. This can happen if the request url has moved permanently to a new url.

* 400, 401, 403, 404, 405

Indicates client errors. It says there is something wrong the way browser. **400** indicates the client has been sent a wrong request such as wrong request syntax, invalid request body, size too large and etc. **401** indicatesunauthorized access. **403** it is same as the 401, this code will return if a user trying to access some resource without necessary permissions.**404** indicates that the requested resource cannot be found. **405** indicates that the request method not allowed.

* 500, 501, 502, 503, 504

Indicates server errors. This code can be sent by the server if the server cannot fulfill the request. **500** indicates the internal server error. This is the generic error message to say an unexpected event happened when processing the request. **501** indicates the request method has not implemented yet and it can be available in the future. **502** indicates a bad gateway if the server was acting as a gateway or proxy and received an invalid response from upstream server. **503** indicates the service unavailable. This can happen when the server is down for maintenance. **504** indicates gateway timeout if the server is acting as a gateway, this can happen the if the upstream server didn`t response before the timeout.

1. Why do we need logging in our applications?

Logging is important to understand the behavior of our application and it is useful in debugging. If an unexpected event happen, we can debug our application and we can check where are we during the debug process using logs.

1. What are different types of log levels?

* Info
* Debug
* Error
* Trace
* Warn
* Error