1. What is Spirng WEB module?

* This module is given by spring Framework.
* It is used to develop both MVC and REST applications
* It works based on HTTP Protocol Standard
* It is used to develop client-server and server-server apps

2)What is MVC?

* The MVC (Model -View – Controller) is a software architectural design pattern
* It separates the functionality of an application into three interconnected parts -Model ,View and Controller

3)What is Spring MVC?

* Java Framework which is used to develop dynamic web applications
* It follows the Model-View-Controller design pattern
* Model -A model contains the data of the application
* Controller – A controller contains the business logic of an application
* View – A view represents the provided information in a particular format. Like JSP+ JSTL, Thymeleaf

4)What is the front controller of spring MVC?

* The front controller is a Dispatcher Servlet class present in org.springframework.web. servlet package.
* It dispatches the request to the appropriate controller and manages the flow of the application
* It is required to specify the DispatcherServlet class in the web.xml. file

5)Explain the flow of spring MVC?

* Once the request has been generated, it intercepted by the DispatcherServlet that works as the front controller.
* The DispatcherServlet gets an entry of handler mapping from the XML file and forwards the request to the controller.
* The controller returns an object of ModelAndView.
* The DispatcherServlet checks the entry of view resolver in the XML file and invokes the specified view component

6)What are the advantages of spring MVC Framework?

* The following are the advantages of spring mvc framework:
* Light -weight: It uses light-weight servlet container to develop and deploy your application
* Rapid development – The spring MVC facilitates fast and parallel development
* Flexible Mapping – It provides the specific annotations that easily redirect the page.

7)Which annotations are used for HTTP request methods?

1)@GetMapping

2)@PostMapping

3)@PutMapping

4)@PatchMapping

5)@DeleteMapping

8) Explain the difference between @Controller and @RestController?

* The main difference between the @Controller and @RestController annotations is that the @ResponseBody annotation is automatically included in the @RestController
* This means that we don’t need to annotate our handler methods with the @ResponseBody
* We need to do this in a @Controller class if we want to write response type directly to the HTTP response body.

9)What are the @RequestBody and the @ResponseBody annotations?

* The @RequestBody annotation used as a handler method parameter, binds the HTTP Request body to a transfer or a domain object.
* Spring automatically deserializes incoming HTTP Request to the java object using HTTP Message Converters.
* @ResponseBody annotation indicates that we’ll write the return type of the method directly to the HTTP response body.

10)What is the role of @ResponseBody annotation in spring MVC?

* The @ResponseBody annotation is used to serialize the returned object automatically in JSON and bind it with the Http response body.
* For ex:

@RequestMapping(“/show”)

@ResponseBody

Public ProductPayload display () {

Return new ProductPayload (id, code, amount);

}

11)What do you understand by validations in spring MVC?

* It is used to restrict the input provided by the user.
* To validate the user’s input, it is required to use the spring 4 or higher version and Bean Validation API.
* Spring validations: @NotNull, @Pattern, @Email, @NotBlank
* @Valid must be used at Method parameter along with @RequestBody or

12) Which annotations are used to define Global Exception Handler class?

* @ControllerAdvice (OR) @RestControllerAdvice along with @ExceptionHandler
* We need to define one user class with annotation @ControllerAdvice or @RestControllerAdvice
* Then define one method and @ExceptioHandler with Exception Type.

13)Explain some Responses status codes?

* 200 – OK indicates Success
* 400 – Bad Request – input data is invalid
* 401 - Unauthorized – Login Request is failed
* 403 – Forbidden – User not allowed to access Resources
* 404 – Not Found – URL is not exist
* 405 – Method Not Allowed – Request Method is invalid
* 500 – Internal server error

14)What is cross – origin concept in spring WEB?

* Cross -Origin Recourses Sharing (CORS) is a security concept that allows restricting the resources implemented in web browsers.
* It prevents the JavaScript code producing or consuming the requests against different origin.
* If your apps need to be connected using JavaScript apps like Angular or ReactJS, then we need to allow those by adding this annotation
* @CrossOrigin (origins = <http://localhost:8008>)

15)What is inti-binder in spring web?

* @intiBinder This annotation is used with the methods which initializes WebDataBinder and works as a preprocessor for each request coming to the controller.
* Like String to Date Format Conversions.
* Even String to any special classaType conversions.

16)Explain @PathVariable and @RequestParam annotations?

* With the @PathVariable annotation, we bind the request URL template path variable to the method variable.
* Ex: <http://localhost:8080/hello/100/Raghu> the 100 value is bound to the id variable and the “Raghu” value to the name variable.
* With the @RequestParam annotation, we can extract values from the query string.
* Ex: <http://localhost:8080/helloworld?id=100&name=Raghu>
* While @RequestParam extract values from the query string, @PathVariables extract values form the URL path.

17)Why do we need View Resolver in spring MVC?

* View Resolver is responsible for rendering of models in the web browser.
* The “InternalResourceViewResolver” is the internal view resolver in the spring mvc.
* There are some important view resolvers in spring MVC as mentioned below:

AbstractCachingViewResolver, XmlViewResolver etc.

18)What is the use of @ModelAttribute annotation?

* It binds a method parameter or a method return value to named model attribute and then exposes it to a web view.
* If a HTML Form is used and submitted with data then it is converted into one class object (like Employee object) and that can be read into code using @Model Attribute.
* Syntax: @ModelAttribute(“objName”)

19)What is the main difference between spring core and spring mvc?

* Spring MVC is built using spring core.
* Spring core is an IOC container that injects dependencies into various bean classes.
* Spring MVC leverages the power of that IOC container to implement webbased applications.
* Spring container concepts like: Container system, Beans, Scheduling, AOP etc.

20)What are the ways of reading data from the form in spring MVC?

* HttpServletRequest interface: The HttpServletRequest is a java interface present in javax.servlet.http package.
* @RequestParam annotation: This annotation reads the form data and binds it automatically to the parameter.
* @ModelAttribute annotation: This binds a method parameter.

21)What is ResponseEntity<T> in spring Rest?