

SPPU-TE-COMP-CONTENT - KSKA Git

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Q What is Struts in Java

→ Struts is a Java framework used to build web application using the MVC design pattern (Model view controller)

Struts helps you separate your business logic, design (HTML/JSP) & control flow in a clean way. so code is organized & easier to maintain.

Why use struts?

1. Makes large web apps
2. Reduce Repetitive code

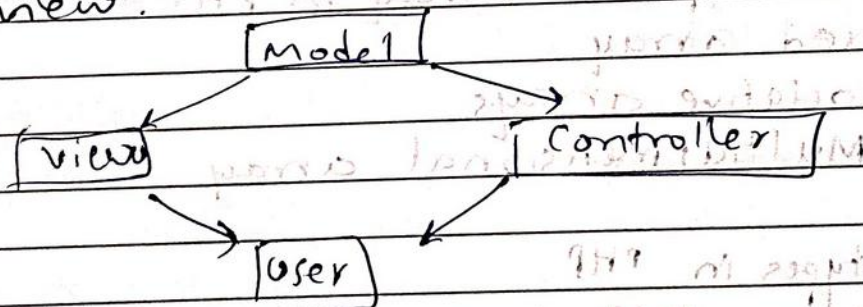
Q2) What is MVC?

Model View Controller

M - manages data

view - UI or presentation layer

controller - Handles input and update the Model & view.



Q3) Struts Components or main classes used in struts application?

→ 1) Action servlet

It is controller in the MVC model. Handles all incoming HTTP requests.

2) ActionForm

- A JavaBean that represents the Form data from client
- Collect user input from Jsp and transfer it to Action class.

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3) Action Class

It processes user request, interact with the model and returns an action forward

4) Action Mapping

Map user request to a specific action class

5) Action Forward

It tells the controller where to navigate ~~next~~ next

Q4) Structs workflow 138 page

Q5) What is PHP?

→ PHP (Hypertext Preprocessor) is a server side scripting language used to develop dynamic web pages. It is embedded within HTML and is widely used for web development.

Q6) Different types of array in PHP?

1) Indexed array

2) Associative arrays

3) Multidimensional array

Q7) Datatypes in PHP

PHP string, PHP boolean, PHP float, PHP integer.

Q8) What is JSP?

→ JSP (Java Server Pages) is a Java technology that helps in creating dynamic web content.

It allow embedding Java code directly into HTML pages using special JSP tags.

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Q 9) JSP Life cycle?

- 1) Translation phase
- JSP page is converted into a servlet by JSP engine
- 2) compilation Phase
- The translated Java servlet file is compiled in a class file.
- 3) Initialization
- The container initializes the JSP servlet using `JspInit()` method
- 4) Request processing
for each request, the container calls the `_jsp service` method.
- 5) Destruction (`JspDestroy()`)
When JSP is taken out of service, the `JspDestroy()` method is called.

Q 10) JSP components

- 1) Directives
- 2) scriptlets
- 3) Expressions
- 4) Declarations
- 5) Standard Actions
- 6) Custom Tags

Q 11) Different Directives in JSP

- 1) Page directive
- 2) Include directive
- 3) taglib directive

Q 12) Implicit objects in JSP.

- 1) Request
- 2) Response
- 3) session out
- 4) session
- 5) application
- 6) config

Q 13) Different JSP actions

- 1) Include tag
- 2) Forward tag
- 3) set property tag

Q14) What is jQuery?

→ jQuery is a Javascript library that simplifies HTML DOM manipulation, event handling, animation and AJAX interaction for rapid web development.

No need to writing long Javascript code → jQuery does it in fewer lines

Q15) What is EJB in Java

→ EJB (Enterprise JavaBeans) is a server side software component that encapsulates business logic of an application. It's part of Java EE (Enterprise Edition) and is used to build scalable, secure and transactional enterprise apps.

Feature - Handles transaction, security

Q16) Types of EJB

- 1) Session Beans → stateless, stateful, singleton
- 2) Message Driven Beans
- 3) Entity Bean

Q17) What is session Bean?

A session Bean is type of EJB used to write business logic that runs for short time - usually while user is interacting with the app.

Think it's like helper that does some work (like saving data, processing payments) and then goes away.

types - stateless, stateful, singleton

Q18) Stateful Session Bean

1. Remember data between method call
2. One bean per user

Stateless Session Bean

- 1) Does not remember anything
- 2) One bean can serve many user.

Q19) What is JavaScript

JavaScript is a client-side scripting language used to create interactive and dynamic web pages. It runs in browser and enables features like form validation, animation & AJAX requests.

Q20) JavaScript features?

- 1) Light weight
- 2) Interpreter
- 3) Dynamic typing
- 4) Event handling

Q21) What is anonymous function & How to define it

→ Anonymous function is simply a function that does not have a name.

```
function() { //body }
```

Q22) Servlet life cycle?

- 1) init(): called once when the servlet is initialized
- 2) service(): called when for each request; handles logic
- 3) destroy(): called once before the servlet is destroyed

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Q23) Why session management is required in server?

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- 1) Maintaining the user states
 - 2) User Authentication
 - 3) Personalization
 - 4) Security

Q24) What is XML?

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- XML stands for extensible Markup Language.
 - It is used to store and share data in a structured, readable format.

XML is a text file where you use custom tags to organize data.

Benefits → Easy to transfer data between systems
→ Human-readable and machine-readable

Q25) Uses of XML:

- 1) Data storage and transport
- 2) Data exchange between systems
- 3) Web services

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Q26) What is angularJS and its application?

→ AngularJS is a Javascript-based open source front-end framework developed by Google. It's used to build dynamic single-page web application.

AngularJS extends HTML with new attributes and binds data to HTML with two way data binding.

Features

- 1) Two way data binding
- 2) MVC architecture
- 3) Directives
- 4) Built in services

Q27) Factory & Service in AngularJS

| Factory | Service |
|-------------------------------------|--|
| 1) Return an object manually | 1) Return a new instance of a function |
| 2) You create and return the object | 2) AngularJS uses new to create the object |
| 3) More flexible | 3) Simpler and cleaner for basic use |

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Q28) Angular JS built-in Directives

1) ng-model → Binds input data to a

variable

2) ng-bind → Displays data from a variable

3) ng-repeat → Loops through items in a list

4) ng-if → Shows element only if the condition is true

5) ng-show → Shows element when condition is true

Q29) What is SPA (Single Page Application) and Routing in Angular JS?

SPA → 1) Entire website runs on one HTML page, and only part of the page updates, not the whole page reloads.

Routing in AJS →

Routing in Angular JS lets you switch between views/pages without reloading the entire page.

Q 30) What is Ajax ?

- Ajax stands for Asynchronous Javascript and XML
- It allows to send and receive data from a server in the background without reloading the entire page.

Use :- make web pages more faster, smoother