1. What is the purpose of the core module in AEM?

Core module basically defines the structural procedure on how an application should rendered. It contains all the backend logic for the components to interact and function in application.

1. What kind of files and code can be found in the core folder?

You can find pom.xml file which is parent xml for the inner xml files it has all the modules, configuration and dependencies that are used to build the project.

You can also find models and OSGi config folder that is equally important as pom.xml as it contains the java model and configurations.

1. Explain the role of ui.apps in AEM projects.

The Role of ui.apps is that it contains all the AEM component, dialogs and client libraries.

1. How are components structured in the ui.apps folder?

They are structured as:

- /apps/project/components/helloworld/ → Component folder.

- /apps/project/components/helloworld/helloworld.html → HTL script.

- /apps/project/components/helloworld/\_cq\_dialog.xml → Dialog config.

1. **Hello World Component:**

* Where is the Hello World component located in both core and ui.apps?

Hello world presents inside core/models as a java file and ui.apps/components as a html and xml file.

* Explain the Java class (in core) for the Hello World component.

It contains a java class HelloworldModel it just has private property message and single method init() which appends the path for the current resource to message variable along with other String. Since it is a protected method it is possibly called by the subclasses of HelloWorldModel.

* How does the HTML script work in ui.apps for Hello World?

It basically creates a template for the web with html properties and just load the content from the core files.

* How are properties and dialogs defined for this component?

That’s something I need to explore, will give answer later

1. What are the different types of AEM modules (core, ui.apps, ui.content, etc.)?

The module listed as follows:

-all

-core

-ui.fronted

-ui.apps

-ui.apps.structure

-ui.config

-ui.content

-it.tests

-dispatcher

-ui.tests

1. How does Maven build these modules?

Through pom.xml in the root folder where each and every module is defined and various dependencies are written. Maven is just a tool to automate some of the structuring process and listing for easier readability and accessibility.

1. Explain the build lifecycle of Maven in the context of AEM.

It has 5 phases in its lifecycle those are:

-clean (which clean the build space for cleaning any unwanted file)

-compile (compiles the modules into class files)

-package (packs the modules or bundles them into single application)

-install (installs to local Maven Repository)

-deploy (pushes to AEM)

1. How are dependencies managed in pom.xml?

The dependencies are managed within dependency management which gives the space for maven to install the dependencies.

1. Why is Maven used instead of other build tools?

The Reason is pretty simple maven has a lot of libraries and access for plugins but the most important is the ability to build in any environment.

1. What advantages does Maven offer for AEM development?

AEM development is fully depend on how well and compactible the projects are built for any platform only maven offers such an easy to develop and automated process for building. So, maven became a preferred tool in AEM development.

1. How does Maven help in managing dependencies and plugins in AEM projects?

Maven creates a pom.xml file which has the sequence the maven needs to install and build package. There dependencies and plugins are separated and drafted in orderly manner for maven to build them.

1. What does mvn clean install do in an AEM project?

This command calls the maven to build the project by referring to pom.xml and install all the necessary plugins and dependencies for building in the Local Repository but before building it cleans the previous build for not affecting the module.

1. How to deploy packages directly to AEM using Maven commands?

By using the command “mvn clean install -PautoInstallPackage” in root directory we can deploy the package directly to the AEM

1. Explain the purpose of different Maven profiles in AEM (autoInstallPackage, autoInstallBundle).

The different command is just used to perform different type of installation and deployment to the AEM.

1. What is the purpose of dumplibs in AEM?

Dumplibs are used to debug CSS and JS files.

1. How can you view client libraries using dumplibs?

Open: <http://localhost:4502/libs/granite/ui/content/dumplibs.html> that ensures that you get to the page where client libraries are present.

1. Explain how client libraries are structured in AEM.

/apps/project/clientlibs

├── js.txt → Lists JavaScript files.

├── css.txt → Lists CSS files.

├── allowProxy (Boolean) → Enables `/etc.clientlibs/` access.