ENA Build Script:

- 1. Moves the file "pom.release.xml" to "pom.xml" in the current directory.
- 2. Moves the file "pom.release.xml" to "pom.xml" in the "employees-and-assets-service" directory.
- 3. Moves the file "pom.release.xml" to "pom.xml" in the "employees-and-assets-commons" directory.
- 4. Sets the variable "project name" to "employees-and-assets".
- 5. Executes a Maven command to retrieve the project version and assigns it to the variable "project version".
- 6. Extracts the short version number from "project_version" and assigns it to the variable "project version short".
- 7. Prints an informational message indicating the found project version.
- 8. Prints an informational message indicating the found short project version.
- 9. Prints an informational message indicating the creation of a new compliant version number.
- 10. Constructs a new version number based on the short version:
- If the short version has only one part (e.g., "1"), appends ".0" to it.
- Otherwise, keeps the short version as is.
- The new version is assigned to the variable "new version".
- 11. Prints an informational message indicating the creation of the new version.
- 12. Applies the new version to the project using the Maven command.
- 13. Creates a file called "propsfile" in the workspace directory with the content "RELEASE VERSION=new version".
- 14. Displays the content of the "propsfile" on the console.

2nd PART:

- 15. Sets the environment variable "MAVEN OPTS" to "-Xmx512m -XX:MaxPermSize=256m".
- 16. (Line commented out) Copies a file called "db-cloudsql.{}.properties" to "db-cloudsql.properties" in the "employees-and-assets-service/src/main/resources" directory.
- 17. (Line commented out) Executes a Maven command with various options and plugins:
 - Cleans the project and prepares the Jacoco agent for code coverage analysis.
 - Installs dependencies and builds the project.
 - Ignores test failures.
 - o Generates a Jacoco report.
 - Uses a specific settings.xml file.
 - Sets the Sonar branch to the value of the "BRANCH" environment variable.
 - o Executes the Sonar analysis using the Sonar Maven plugin.

- 18. Sets the "PATH" environment variable to include the directory "/usr/java/jdk1.8.0_102/bin/" at the beginning.
- 19. Sets the "JAVA_HOME" environment variable to "/usr/java/jdk1.8.0_102".
- 20. Executes a Maven command with the following options:
 - o Runs Maven in batch mode (-B).
 - Skips running tests.
 - Deploys the project.

ENA Deploy Script:

PART 1: Build

- 21. Sets the "PATH" environment variable to include the directory "/usr/java/jdk1.8.0 102/bin/" at the beginning.
- 22. Sets the "JAVA HOME" environment variable to "/usr/java/jdk1.8.0 102".
- 23. Searches for files named "pom.release.xml" in the current directory and its subdirectories.
- 24. Renames any found "pom.release.xml" files to "pom.xml".
- 25. Searches for files named "pom.xml" in the current directory and its subdirectories.
- 26. Replaces the string "WPR" with the value of the "WPR_no" variable in the found "pom.xml" files.
- 27. Changes the current directory to "./employees-and-assets-liquibase/".
- 28. Executes a Maven command with the following options:
 - o Runs Maven in batch mode (-B).
 - o Forces updates of dependencies and plugins (-U).
 - Sets the groupId to "com.g4s.javelin".
 - Sets the artifactId to "employees-and-assets*".
 - Sets the new version to the value of the "TAG" variable.
- 29. Changes the current directory back to the previous directory.
- 30. Prints the message "executing liquibase".
- 31. Changes the current directory to "./employees-and-assets-liquibase/employees-and-assets-service".
- 32. Executes a Maven command to update the database using Liquibase:
 - Specifies the Liquibase profile as "uat-ie-liquibase".
 - o Provides the Liquibase username as the value of the "user liq" variable.
 - o Provides the Liquibase password as the value of the "pass liq" variable.

PART-2

- 33. Prints the value of the "PACKAGE VERSION" variable.
- 34. Prints the value of the "PACKAGE GROUP ID" variable.
- 35. Prints the value of the "PACKAGE ARTIFACT ID" variable.
- 36. Prints the value of the "PACKAGE PACKAGING" variable.
- 37. Prints the value of the "PACKAGE CLASSIFIER" variable.
- 38. Prints the value of the "PACKAGE ARTIFACT URL" variable.
- 39. Creates a file called "package.json" and writes the following content to it:
 - Sets the "name" field in the JSON object to the value of "\$PACKAGE_GROUP_ID:\$PACKAGE_ARTIFACT_ID".
 - Sets the "version" field in the JSON object to the value of "\$PACKAGE VERSION".
 - The "EOF" delimiter marks the end of the content to be written.

PART-3

- 40. (Line commented out) Exits the script with a successful status code (0).
- 41. Sets the value of the "PROJECT" variable to "javelin-v2-1-uat".
- 42. Sets the Google Cloud project configuration to the value of the "PROJECT" variable.
- 43. Sets the Google Cloud service account configuration to "jenkins-deploy@\$PROJECT.iam.gserviceaccount.com".
- 44. Executes a command to list the running instances in Google Compute Engine and filters for instances containing "ops-app-server" in their names. The output is stored in the "VMSTATUS" variable.
- 45. Prints the value of the "VMSTATUS" variable.
- 46. Extracts the first field (VM name) and second field (VM zone) from the "VMSTATUS" variable and assigns them to the "VMNAME" and "VMZONE" variables, respectively.
- 47. Modifies the "PACKAGE_ARTIFACT_URL" variable, replacing "https://nexus.javelin.g4s.com".
- 48. Connects to the VM specified by "VMNAME" and "VMZONE" and executes the following commands:
 - Creates a directory "/home/jenkins/ena-\$env".
 - Changes to the "/home/jenkins/ena-\$env" directory.
 - Removes all files and directories inside the current directory.
 - Downloads the artifact specified by "PACKAGE_ARTIFACT_URL" and saves it as "ena-\$env.war" with backup files.
 - Creates a directory "WEB-INF/classes".
- 49. Copies the file **30-java-env-uat.bash** from the local directory **automation/docker-deploy** to the remote path **/home/jenkins/ena-\$env/30-java-env.bash** on the virtual machine specified by **\$VMNAME** in the zone **\$VMZONE** and the Google Cloud project **\$PROJECT**.

- 50. Copies the file docker-compose.\$PROJECT-\$env.yml from the local directory automation/docker-deploy/dockerComposeEnv to the remote path /home/jenkins/ena-\$env/docker-compose.yml on the virtual machine.
- 51. Copies the file **module.Dockerfile** from the local directory **automation/docker-deploy** to the remote path **/home/jenkins/ena-\$env/ena-\$env.Dockerfile** on the virtual machine.
- 52. Copies the file app.\$PROJECT-\$env.properties from the local directory employees-and-assets2/employees-and-assets-service/src/main/resources to the remote path /home/jenkins/ena-\$env/WEB-INF/classes/application.properties on the virtual machine.
- 53. Copies the file db-cloudsql.\$PROJECT-\$env.properties from the local directory employees-and-assets2/employees-and-assets-service/src/main/resources to the remote path /home/jenkins/ena-\$env/WEB-INF/classes/db-cloudsql.properties on the virtual machine.
- 54. Copies the file serviceaccount.\$PROJECT-\$env.json from the local directory employees-and-assets2/employees-and-assets-service/src/main/resources to the remote path /home/jenkins/ena-\$env/WEB-INF/classes/serviceaccount.json on the virtual machine.
- 55. Connects to the virtual machine specified by "VMNAME" and "VMZONE" using SSH.
- 56. Executes the following commands on the remote machine:
 - Changes the current directory to "/home/jenkins/ena-\$env".
 - Modifies the "docker-compose.yml" file, replacing occurrences of "module" with "ena-\$env".
 - Modifies the "docker-compose.yml" file, replacing port "8089" with "8081".
 - Modifies the "ena-\$env.Dockerfile" file, replacing occurrences of "module" with "ena-\$env".
 - Modifies the "30-java-env.bash" file, replacing occurrences of "module" with "ena-\$env".
 - Modifies the "30-java-env.bash" file, replacing the value "1024" with "10240".
 - Modifies the "30-java-env.bash" file, replacing "log_server_ip" with "172.18.0.46".
 - Stops the running Docker containers using "docker-compose down" command with superuser privileges.
 - Copies the "application.properties" file from "WEB-INF/classes/" to the current directory.
 - Updates the "ena-\$env.war" file with the modified "application.properties" file and specific files from the "WEB-INF/classes/" directory using the "jar" command.
 - Starts the Docker containers using "docker-compose up" command with superuser privileges, building any necessary images and running them in detached mode ("-d").

57. The SSH connection is made to the VM specified by "VMNAME" in the zone "VMZONE" and the Google Cloud project "PROJECT".