

**Course No: CSE-3106**

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| An assignment on “Extract various Artifacts of the following open source software systems: Azure Java SDK, ChatGPT. |

**Course Title: Software Development Project**

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**Azure Java SDK**

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| Artifact Name | What is it | Why it is used | How is it created |
| Codebase | Implemented software code | The core of the software, containing the actual implementation of features and functionality. | Programmers and tools write or create it. |
| README | Project overview and instructions | A concise guide that provides an overview of the project, installation instructions, and other essential details. | Maintainers create and update the README file to help users understand the project quickly. |
| Releases | Versioned releases of the software | Marks stable points in the software development lifecycle, providing users with specific versions. | Maintainers create releases by tagging specific commits in the version control system and documenting changes in release notes. |
| Activity | Project activity log | Displays recent activities, such as commits, pull requests, and issues, giving an overview of project engagement. | Automatically generated based on user interactions with the repository (e.g., creating issues, commenting, merging pull requests). |
| doc | Documentation for the current repository | To keep sophisticated SDK documentation for developers. | Frequently produced by hand using markup languages or software to produce documentation from inline remarks in the source code. |
| eng | Engineering tools/utilities that are part of the build configuration. | Used to perform repetitive or common Tasks. | Programmers use scripting languages to write it. |
| samples | A collection of sample code, examples of applications and instructions. | To facilitate developers' learning and modification. | From code snippets, example configurations or sample data sets. |
| Azure management client library | A higher-level, object oriented API | An approach to managing Azure resources that prioritizes simplicity, conciseness, and uniformity. | By means of an existing feedback mechanism between developers and users. |
| Core executables | Executable files focused on the users. | Integrating graphical user interface (GUI) with source code. | Compiled from the source code. |
| Commit | Record of changes to the code. | Documents changes made to the codebase, provides a version history. | Developers commit changes with messages for tracking. |
| Pull Request | Proposed changes to the codebase | Enables contributors to suggest modifications, additions, or fixes and facilitates code review before merging. | Contributors create pull requests to propose changes, and reviewers provide feedback before merging. |
| Discussion | Conversations and threads | Facilitates communication among contributors and users about various topics, decisions, or planning. | Users and contributors engage in discussions, and it serves as a platform for collaborative decision-making. |
| Action | Automated workflows | Defines a series of steps to be executed automatically, often used for continuous integration or deployment. | Developers define actions in YAML files, specifying triggers, jobs, and steps for automation. |
| Wiki | Collaborative documentation | A space for project-related documentation, guides, and knowledge-sharing. | Contributors create and edit wiki pages to document project information, guidelines, and best practices. |
| Security | Security-related information and advisories | Provides information about potential security vulnerabilities and how to address them. | Security researchers or maintainers report vulnerabilities, and maintainers address and document security measures. |
| Custom Properties | User-defined metadata or attributes | Additional information attached to issues, pull requests, or other items | Users can define and set custom properties as needed |
| Code of Conduct | Set of rules for project contributors | Defines community standards, fostering a positive and inclusive environment | Maintainers or community establish and enforce the code of conduct |

**ChatGPT**

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| Artifact Name | What is it | Why it is used | How is it created |
| assets | Usually refers to binary or non-code files, such as papers, photos, configuration files, and so forth. | Images for logos or user interface components, documents for documentation, and configuration files for configuring. | Graphic design tools are used for images, text editors are used for documents, and configuration files are manually created. |
| script | Code documents composed in scripting languages such as JavaScript, Python, or Shell scripts. | To Automate tasks, perform operations or execute tasks. | These files are written, edited, and saved by developers using  Integrated Development Environments (IDE). |
| src | Usually refers to a project's source code files and stands for "source." | Comprises the primary code that carries out the project's features and serves to specify the logic and functioning of the software. | Developers use text editors or IDEs to create source code files. |
| README | A file containing essential information about the project | Serves as the initial point of reference for anyone visiting the repository | Maintainers write and update the README file with project information, setup instructions, and usage guidelines. |
| Releases | Specific versions or milestones of the software with associated release notes. | Facilitates versioning and informs users of changes in each release | Maintainers create releases in the repository, specifying version numbers and release notes. |
| Codebase | The collection of source code files that form the foundation of the software | It is the actual implementation of the software's functionality. | Programmers and tools write or create it using programming languages such as Python, Java, etc. |
| Core Executable | The compiled version of the software that can be executed | It is the runnable program that users can use to interact with the software | Created through the process of compiling the codebase. Compilers (e.g., GCC, Java compiler) are often used to generate the executable file. |
| Commit | Record of changes to the code. | Documents changes made to the codebase, provides a version history. | Developers commit changes with messages for tracking. |
| Pull Requests | Proposed changes to the codebase that need to be reviewed and merged | Facilitates collaboration among developers by allowing them to propose changes, discuss, and review before merging | Developers create pull requests through version control systems (e.g., Git) and platforms like GitHub. |
| Discussions | Forum-like conversations related to the project | Used for broader discussions, questions, and community engagement | Users create and participate in discussions on the project's GitHub repository. |
| Actions | Automated workflows defined in code that execute on specific events | Automates repetitive tasks such as testing, building, or deploying code | Developers define actions in the repository's .github/workflows directory using YAML syntax. |
| Wiki | A collection of pages containing additional documentation and information | Offers a space for supplementary project documentation | Maintainers and contributors create and edit Wiki pages within the GitHub repository. |
| Security | Security-related information, such as vulnerability alerts and dependency insights | Helps identify and address potential security issues in the project | Automatic security scanning tools and GitHub's security features generate and display security-related information. |
| Activity | A timeline of events and actions within the repository | Provides a historical view of changes, issues, and pull requests | GitHub automatically generates the activity feed based on user interactions with the repository. |