Software Development Project

Course No: CSE 3106

An Assignment on various Artifacts of Azure Java SDK and ChatGPT open source software systems.

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Azure Java SDK

Artifact Name	What is it	Why it is used	How is it created
Code	The "Code" section within a GitHub repository houses the actual source code files, directories, and any other related assets.	It is the core of the project, containing the programming logic and resources needed for the application to function.	Developers contribute to the codebase by adding, modifying, and organizing files.
Issues	The "Issues" tab serves as a dynamic forum for discussing topics related to the project, including bug reports, feature requests, and general discussions.	Developers and users collaborate to track, prioritize, and resolve tasks and improvements.	Users can open new issues to report problems or suggest enhancements.
Pull Requests	Pull requests are proposed changes submitted by contributors, highlighting modifications made in their own fork of the repository.	Facilitates code review and collaboration before merging changes into the main codebase.	Contributors initiate a pull request after making changes in their fork.
Actions	The "Actions" feature allows users to automate workflows and tasks, triggered by events such as code pushes or pull requests	Streamlines processes like testing, building, and deploying code, improving overall project efficiency.	Configuration is done through YAML files in the **.github/workflows** directory.
Projects	GitHub Projects provides a visual board to organize and prioritize work, typically through columns representing different project stages.	Aids project management by visually tracking issues, pull requests, and notes.	Users can set up projects and add issues or pull requests to specific columns.

Security	The "Security" tab contains features to identify and address security vulnerabilities in the repository	Enhances the overall security of the codebase by providing tools for vulnerability management	Security features are configured in the repository settings.
Insights	The "Insights" tab provides analytics and statistics on repository activity, offering valuable data on contributors, traffic, and issues.	Helps maintainers and contributors gauge the project's health and popularity.	Insights are automatically generated based on repository activity.
Readme	The README.md file, typically found in the root of a repository, contains information about the project, including its purpose, usage, and configuration.	Serves as a project's front page, offering guidance to users and contributors.	Maintainers create and update the README to provide relevant information
View License	The "View License" link displays the licensing terms under which the project is distributed.	Informs users of the permissions and restrictions associated with using the project's code.	A license file, like **LICENSE**, is added to the repository
Code of Conduct	The "Code of Conduct" outlines expected behavior for contributors and participants within the project community.	Promotes a welcoming and inclusive environment by establishing community standards.	A document (e.g., **CODE_OF_CONDUCT.md**) is added to the repository.
Activity	The "Activity" tab displays a timeline of recent events in the repository, such as commits, pull requests, and issue updates.	Offers a real-time overview of project activity and engagement.	Activity is automatically generated based on user interactions
Custom Properties	Custom properties refer to additional metadata or settings specific to the repository, beyond default configurations.	Allows customization of repository behavior to suit project-specific needs.	Configurable through the repository settings

Stars	Users can "Star" a repository to bookmark it and express appreciation, indicating popularity and interest	A measure of a project's popularity and acknowledgment within the GitHub community.	Users click the "Star" button on a repository.
Watching	Users can "Watch" a repository to receive notifications for all conversations, keeping them informed about updates and discussions.	Keeps users engaged and informed about ongoing developments	Users click the "Watch" button on a repository.
Forks	Forking a repository creates a personal copy, allowing users to make changes without affecting the original project.	Facilitates collaboration and experimentation without direct commit access.	Users click the "Fork" button on a repository.
Releases	GitHub releases are distributions of the project at specific points in time, typically associated with stable versions.	Provides users with access to stable releases for downloading and usage	Defined by creating a release and attaching specific commits or files.

ChatGPT

Artifact Name	What is it	Why it is used	How is it created
Source Code	The source code of ChatGPT comprises the actual program logic and components written in a programming language.	It forms the backbone of ChatGPT, defining its functionality and behavior.	Developed by engineers and researchers through coding, it undergoes continuous refinement and enhancement.
Branches	Branches in the source code repository represent divergent lines of development, allowing separate work on features or fixes.	Facilitates parallel development efforts and experimentation without affecting the main codebase.	Created by branching off the main codebase, often initiated for specific tasks or features.
Tags	Tags are labels associated with specific points in the Git history, typically used to mark release points or significant milestones	Provides a stable reference point for specific versions, aiding in version control and release management	Added to specific commits using Git commands to mark a point in the project's history
Commit Messages	Commit messages accompany code changes, providing a concise description of the modifications made in a commit.	Offers insights into the purpose and context of code changes, aiding collaboration and code review.	Written by developers when committing changes, summarizing the rationale and impact of the modifications.
Discussions	Discussions are forums or threads where developers and contributors can engage in conversations related to ChatGPT development	Facilitates communication, decision-making, and issue resolution within the project community.	Initiated by users or contributors, discussions can cover a range of topics, from feature requests to bug reports.

Readme	The README file serves as a document providing information about ChatGPT, including its purpose, usage, and contribution guidelines	Acts as a comprehensive guide for users and contributors, offering key details about the project.	Authored and maintained by project maintainers, often located in the root directory of the repository.