## **Project Development Phase**

### Code layout, Readability and Reusability

Team id	NM2023TMID06136
Project name	Creation of google ads campaign

When it comes to organizing and structuring code for Google Ad campaigns, there are several best practices that you can follow to ensure a clean and reusable codebase. Below are some tips for code layout and reusability:

#### 1. Modularization:

- Break your code into modular components, each handling a specific aspect of the ad campaign (e.g., ad creation, targeting, bidding).
- Use functions or classes to encapsulate related functionality. This makes your code more readable and allows for easier maintenance.

## **2.** Configuration Management:

- Store configuration settings (e.g., campaign settings, ad creative details) in a separate file or module. This makes it easier to update settings without modifying the main code.
- Consider using environment variables or a configuration file to store sensitive information like API keys.

#### 3. Reusable Functions:

- Identify common tasks or operations that are repeated across different parts of your code and encapsulate them into reusable functions.
- For example, if you frequently make API requests, create a function for that task and reuse it throughout your code.

#### 4. Documentation:

- Document your code thoroughly. This includes comments within the code and external documentation explaining the purpose of each module, function, or class.
- Clearly document any input parameters, return values, and the expected behavior of each component.

### 5. Separation of Concerns:

- Separate concerns by dividing your code into logical layers. For example, have separate modules for handling API interactions, data processing, and business logic.
- This separation makes it easier to understand and maintain different parts of your codebase.

### 6. Error Handling:

- Implement proper error handling throughout your code. This ensures that your application can gracefully handle unexpected situations and provides meaningful error messages.
- Consider creating a centralized error-handling module to manage and log errors consistently.

#### 7. Version Control:

- Use a version control system (e.g., Git) to track changes to your codebase. This helps in collaborating with others, rolling back changes, and maintaining a clean history.
- Develop unit tests for critical components of your code. This helps ensure that changes to one part of the code don't inadvertently break other parts.

# 8. Testing:

• Automated testing can save time and reduce the risk of introducing bugs.

# 9. Naming Conventions:

• Adopt a consistent and meaningful naming convention for variables, functions, and classes. This makes your code more readable and helps others understand your code.

#### 10. Code Reviews:

• Conduct code reviews regularly to get feedback from team members. This promotes best practices, catches potential issues early, and improves overall code quality.