# Final Deliverables Coding and Solutioning

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Team ID	NM2023TMID01111
Project Name	Keyword Research using Google
	Keyword Planner

## **Coding and Solutioning:**

It refers to the process of creating a solution to a problem or task using programming languages and tools. This involves writing codes, testing and debugging, and optimizing the solution for performance and efficiency.

#### **Parameters:**

The important parameters of the code are as follows. Such as

- No. of Functional features included in the solution
- Code-layout, Readability and Reusability
- Utilization of algorithms
- Debugging and Traceability
- Exception Handling

Let us see, how these parameters are implemented in my project.

## 1.No. of Functional features included in the solution:

The number of functional features included in a solution for keyword research using google keyword planner can vary depending on the specific requirements and complexity of the system. However, here are some common four Functional features that I have developed for this project is listed below.

- Accessing the google ad campaign platform.
- Keyword Research
- Filtering and Sorting
- Bid Estimates (Cost Per Click)

## 2. Code-layout, Readability and Reusability:

When developing a google keyword planner, it is essential to consider code layout, readability, and reusability. These factors contribute to the overall quality and maintainability of the codebase.

#### **Code- Layout:**

Code layouting refers to the organization and formatting of code in a consistent and visually pleasing manner. Proper code layouting improves readability, maintainability, and collaboration among developers.

#### Readability:

It refers to Write code that is easy to understand and follow. Use meaningful variable and function names that reflect their purpose and intention. Write concise and self-explanatory comments. Explain the purpose of the code, its expected behavior, and any potential caveats or limitations.

#### **Reusability:**

Aim to write modular code that can be easily reused in different parts of the system or in future projects. Implement a clear and consistent API for interacting with your food delivery system. This allows other developers to easily integrate or extend its functionality.

So, with reference to these criteria, I have developed my project with ease of code-layouting, read as well as reuse ability.

## 3.Utilization of algorithm:

Utilizing resources efficiently is crucial in a google+keyword+planner to ensure optimal performance and cost-effectiveness. The major utilizations are like

- Data storage google ads
- Network communication
- Connecting with software
- User Interface

By focusing on efficient resource utilization, a owners can maximize performance, minimize costs, and ensure sustainable operation. Regular monitoring, analysis, and optimization are key to maintaining an optimized system throughout its lifecycle. Implement monitoring tools to track resource usage and identify bottlenecks or areas for optimization. Continuously analyse resource utilization data and optimize system components based on the findings. Employ predictive analytics or machine learning algorithms to forecast resource requirements and optimize resource allocation.

### 4. Debugging and Traceability:

Debugging and traceability are crucial aspects of google keyword planner. They help in identifying and resolving issues, tracking system behaviour, and ensuring accurate billing processes. the major debugging properties are

- Logging and Error Handling
- Debugging Tools and Techniques
- Error Reporting and Monitoring
- Traceability and Audit Trail
- Test and Debug in Realistic Environments

By incorporating effective debugging and traceability practices in your food delivery system, you can enhance its reliability, ensure accurate advertisement, and efficiently resolve issues that may arise.

# **5.Exception handling:**

Exception handling is an important aspect of any software system, including keyword research using google keyword planner. It helps ensure that your application can gracefully handle unexpected or exceptional situations that may arise during runtime. This is all about Coding and solutioning phase of our Project. Thus, We have successfully completed this major part here, which is a development phase of our project "Keyword Research using Google Keyword Planner".