**CODE ALPHA TASK-1**

**Intern Details**

* **Name:** M.Thrisha
* **Domain:** Programming language
* **Member Type:** Individual

**TASK-1 Progress Overview**

* **Task Assigned**
* Student Grade Tracker
* **Work Done:**
* Created a Java program to manage student grades.
* Used ArrayList to store student names and their scores.
* Calculated average, highest, and lowest marks.
* Displayed a summary report with all student details.
* Made a simple console-based interface for user input and output.

**Project Details**

**Project Title:**  Student Grade Tracker

**Feature Implemented in Task-1:**

* Developed a system to input and manage student names and marks.
* Stored student records using Java’s ArrayList for dynamic data handling.
* Calculated and displayed average, highest, and lowest scores.
* Generated a clear summary report of all student performance data.
* Built a straightforward console interface for easy user interaction.

**Guidelines Followed:**

* 1. Wrote clean and easy-to-understand code.
  2. Kept the program organized with separate parts for input, processing, and output.
  3. Used ArrayList to store student data properly.
  4. Made the interface simple so users can easily enter and view information.
  5. Checked user input to prevent errors.
  6. Made sure all results like average, highest, and lowest marks were correct.

**GitHub Repository**

**GitHub Repository Link:**

**Project Approach**

* **What were your thoughts when approaching the task?**

To create a clean and scalable to the approaching with asking detailed information on ChatGPT usage

* **How did you plan to tackle the problem?**

planned the program by breaking it into steps: collecting student data, calculating results, and displaying them. I used an ArrayList for storage and created a simple console interface for easy interaction.

* **What steps did you take while working on the task?**

I began by organizing the program and storing student names and marks using a list. Then, I wrote the code to get input, calculate scores, and show the results clearly.

* **What did you learn from this process?**
* Gained practical experience using ArrayList for dynamic data management in Java applications.
* Developed skills in implementing accurate statistical calculations such as averages and extremum values.
* Enhanced ability to design and implement user-friendly console-based interfaces for effective interaction.

**Conclusion :**

This project helped me understand how to manage and process student data efficiently. I learned how to use lists for storing information and perform useful calculations. The task also improved my skills in creating easy-to-use console programs. Overall, it was a valuable learning experience that strengthened my programming abilities.