A

PROJECT REPORT

ON

"TO DO LIST"

SUBMITTED BY:

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SUBJECT:

PROGRAMMING AND PROBLEM SOLVING USING C++

Under the guidance of

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INTRODUCTION

A To-Do List is a simple application that allows users to manage their daily tasks by adding, deleting, and viewing tasks. It helps users stay organized by keeping track of pending tasks. The core functionality of a To-Do List includes the ability to create tasks, mark them as complete, and delete them once they are done.

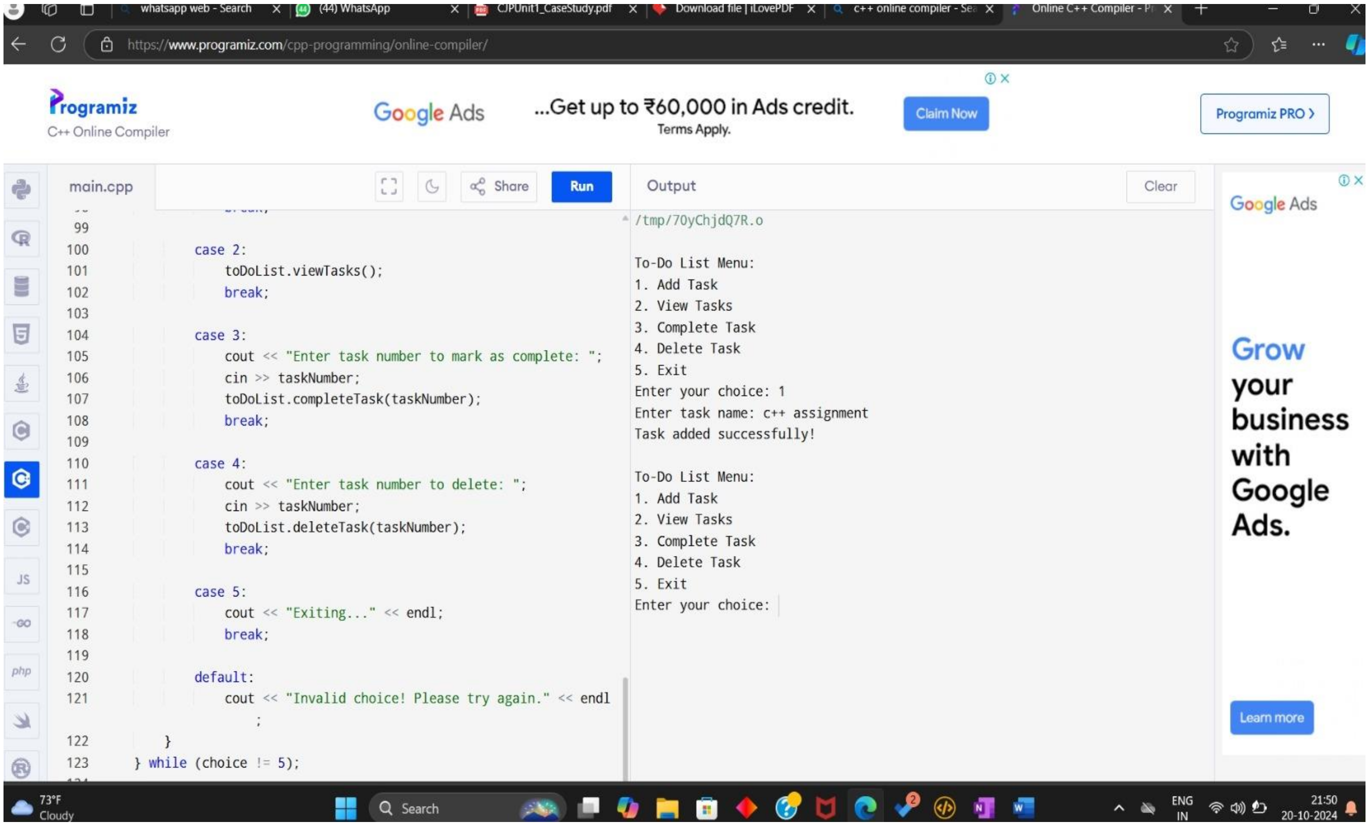
This project is developed using C++ and Object-Oriented Programming (OOP) concepts. OOP makes the program modular, reusable, and easy to maintain by dividing the functionality into classes and objects.

CODE

```
#include <iostream>
#include <vector>
#include <string>

using namespace std;

class Task {
private:
    string taskName;
    bool isCompleted;

public:
    Task(string name) {
        taskName = name;
        isCompleted = false;
    }

    void markComplete() {
        isCompleted = true;
    }

    string getTaskName() {
        return taskName;
    }

    bool getStatus() {
        return isCompleted;
    }
};
```

```
class ToDoList {
private:
    vector<Task> tasks;

public:
    void addTask(string name) {
        Task newTask(name);
        tasks.push_back(newTask);
        cout << "Task added successfully!" << endl;
    }

    void viewTasks() {
        if (tasks.empty()) {
            cout << "No tasks in the list." << endl;
            return;
        }

        for (int i = 0; i < tasks.size(); i++) {
            cout << i + 1 << ". " << tasks[i].getTaskName();
            if (tasks[i].getStatus()) {
                cout << " (Completed)";
            }
            cout << endl;
        }
    }
void completeTask(int taskNumber) {
        if (taskNumber > 0 && taskNumber <= tasks.size()) {
            tasks[taskNumber - 1].markComplete();
            cout << "Task marked as completed!" << endl;
        } else {
            cout << "Invalid task number!" << endl;
        }
    }
    void deleteTask(int taskNumber) {
        if (taskNumber > 0 && taskNumber <= tasks.size()) {
            tasks.erase(tasks.begin() + taskNumber - 1);
            cout << "Task deleted successfully!" << endl;
        } else {
            cout << "Invalid task number!" << endl;
        }
    }
};

int main() {
    ToDoList toDoList;
    int choice;
    string taskName;
    int taskNumber;

    do {
        cout << "\nTo-Do List Menu:" << endl;
        cout << "1. Add Task" << endl;
        cout << "2. View Tasks" << endl;
        cout << "3. Complete Task" << endl;
        cout << "4. Delete Task" << endl;
        cout << "5. Exit" << endl;
        cout << "Enter your choice: ";
        cin >> choice;
        cin.ignore();

        switch (choice) {
            case 1:
                cout << "Enter task name: ";
                getline(cin, taskName);
                toDoList.addTask(taskName);
                break;
case 2:
                toDoList.viewTasks();
                break;

            case 3:
                cout << "Enter task number to mark as complete: ";
                cin >> taskNumber;
                toDoList.completeTask(taskNumber);
                break;

            case 4:
                cout << "Enter task number to delete: ";
                cin >> taskNumber;
                toDoList.deleteTask(taskNumber);
                break;

            case 5:
                cout << "Exiting..." << endl;
                break;

            default:
                cout << "Invalid choice! Please try again." << endl;
        }
    } while (choice != 5);

    return 0;
}
```

OUTPUT



```cpp

            case 2:
                toDoList.viewTasks();
                break;

            case 3:
                cout << "Enter task number to mark as complete: ";
                cin >> taskNumber;
                toDoList.completeTask(taskNumber);
                break;

            case 4:
                cout << "Enter task number to delete: ";
                cin >> taskNumber;
                toDoList.deleteTask(taskNumber);
                break;

            case 5:
                cout << "Exiting..." << endl;
                break;

            default:
                cout << "Invalid choice! Please try again." << endl
                    ;
        }
    } while (choice != 5);
```

```
/tmp/7OyChjdQ7R.o

To-Do List Menu:
1. Add Task
2. View Tasks
3. Complete Task
4. Delete Task
5. Exit
Enter your choice: 1
Enter task name: c++ assignment
Task added successfully!

To-Do List Menu:
1. Add Task
2. View Tasks
3. Complete Task
4. Delete Task
5. Exit
Enter your choice:
```

CONCLUSION

The To-Do List application is a simple but effective tool to help manage daily tasks. Using OOP principles in C++, the application is modular, easy to update, and maintain. Features like task addition, completion, and deletion have been implemented to help users track their progress efficiently.

THANK YOU!!!!!!....