```cpp
#include <iostream>
#include <string>
using namespace std;
int main()
{
    std::cout << "Hello, " << "!\n";
    string Automatic_Irrigation_System_zzyz;
    int bottom_threshold;
    int irrigation;
    int value;
    int threshold;
    int tank_water_level;
    int threshold_level;

    while (1)
    {
        while (1)
        {
            Automatic_Irrigation_System_zzyz ="Measure soil moisture";
            cout << Automatic_Irrigation_System_zzyz << endl;
            cin >> value;
            threshold =50;
            if (value<threshold) break;
            cout << "SENDING REPORT ALL OK" << endl;
        }
        while (1)
        {
            Automatic_Irrigation_System_zzyz ="Measure tank water level ";
            cout << Automatic_Irrigation_System_zzyz << endl;
            cin >> tank_water_level;
            bottom_threshold =30;
            if (tank_water_level>bottom_threshold) break;
            cout << "Motor pump Switched ON " << endl;
            cout << "Alarm on to fill tank and motor is switched off" << endl;
        }
        Automatic_Irrigation_System_zzyz ="STARTING IRRIGATION";
        cout << Automatic_Irrigation_System_zzyz << endl;
        cin >> irrigation;
        threshold_level =50;
        if (irrigation>threshold_level) break;
    }
    cout << "SENDING REPORT ALL OK" << endl;
    return 0;
}
```

```
                          Start

                          Loop ──────────────────────────┐
                                                         │
                          Loop ─────────────────────┐    │
                                                    │    │
        →  "Measure soil moisture"                  │    │
           GET Value                                │    │
                                                    │    │
              Threshold ← 50                        │    │
                                                    │    │
  Yes ◁──────  Value<Threshold                      │    │
      │                  │ No                        │    │
      │        PUT "SENDING REPORT                   │    │
      │        ALL OK"¶              →               │    │
      │                                             │    │
      └────────────────┐                            │    │
                       │                            │    │
                      Loop ───────────────────┐     │
                                              │     │
        →  "Measure tank water level "        │
           GET Tank_water_level               │
                                              │
              Bottom_Threshold ← 30
```

```
                    ┌─────────┐
                    │  Loop   │
                    └────┬────┘
                         │
          ┌──────────────┴──────────────┐
          │  "Measure tank water level " │
       ──▶│   GET Tank_water_level       │
          └──────────────┬──────────────┘
                         │
          ┌──────────────┴──────────────┐
          │  Bottom_Threshold ← 30       │
          └──────────────┬──────────────┘
                         │
    Yes   ╱──────────────┴──────────────╲
    ◀─────  Tank_water_level>Botto m_Threshold
          ╲──────────────┬──────────────╱
                        No
          ┌──────────────┴──────────────┐
          │  PUT "Moter pump Switched    │──▶
          │  ON "¶                       │
          └──────────────┬──────────────┘
          ┌──────────────┴──────────────┐
          │  PUT "Alarm on to fill tank  │──▶
          │  and motor is switched off"¶ │
          └──────────────┬──────────────┘
                         │
          ┌──────────────┴──────────────┐
       ──▶│  "STARTING IRRIGATION"       │
          │   GET IRRIGATION             │
          └──────────────┬──────────────┘
          ┌──────────────┴──────────────┐
          │  Threshold_level ← 50        │
          └──────────────┬──────────────┘
    Yes   ╱──────────────┴──────────────╲
    ◀─────  IRRIGATION >Threshold_level
          ╲──────────────┬──────────────╱
                        No
          ┌──────────────┴──────────────┐
          │  PUT "SENDING REPORT         │
          │  ALL OK"¶                    │
          └──────────────────────────────┘
```

"STARTING IRRIGATION"
GET IRRIGATION

Threshold_level ← 50

IRRIGATION > Threshold_level

Yes

No

PUT "SENDING REPORT
ALL OK"¶

End