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Q1

```
#include <iostream>

using namespace std;

class Student
{
public:
    // Overloaded function to find maximum of two scores
    int maximum(int score1, int score2)
    {
        return (score1 > score2) ? score1 : score2;
    }

    // Overloaded function to find maximum score from an array
    int maximum(int *a, int arrayLength)
    {
        int maxScore = a[0];
        for (int i = 1; i < arrayLength; ++i)
        {
            if (a[i] > maxScore)
            {
                maxScore = a[i];
            }
        }
        return maxScore;
    }
};

int main()
{
    Student student;

    int score1, score2;

    cout << "Enter score 1: ";
```

```

cin >> score1;

cout << "Enter score 2: ";

cin >> score2;

cout << "Maximum score of the two students: " << student.maximum(score1,
score2) << endl;

int arrayLength;

cout << "Enter the number of scores in the array: ";

cin >> arrayLength;

int *scores = new int[arrayLength];

cout << "Enter " << arrayLength << " scores: ";

for (int i = 0; i < arrayLength; ++i)
{
    cin >> scores[i];
}

cout << "Maximum score from the array: " << student.maximum(scores,
arrayLength) << endl;

delete[] scores;

return 0;
}

```

Q2

```

#include <iostream>

using namespace std;

class Distance
{
private:
    int kilometers;
    int meters;
public:
    void acceptDistance()
    {
        cout << "Enter distance in kilometers: ";
    }
}

```

```

cin >> kilometers;

cout << "Enter distance in meters: ";

cin >> meters;

}

void displayDistance()

{
cout << "Distance: " << kilometers << " kilometers and " << meters <<
" meters" << endl;
}

bool operator>(const Distance &other)

{
if (kilometers > other.kilometers)
return true;

else if (kilometers == other.kilometers && meters > other.meters)
return true;

else
return false;
}

};

int main()

{
Distance distance1, distance2;

cout << "Enter details for the first distance:\n";

distance1.acceptDistance();

cout << "\nEnter details for the second distance:\n";

distance2.acceptDistance();

cout << "\nDetails of the first distance:\n";

distance1.displayDistance();

cout << "\nDetails of the second distance:\n";

distance2.displayDistance();

if (distance1 > distance2)

```

```
cout << "\nThe first distance is greater.\n";  
else  
cout << "\nThe second distance is greater or equal.\n";  
return 0;  
}
```