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DEPT: BSCS
PF: TASK 03

TASK 01:

```cpp
#include<iostream>
using namespace std;

int main(void) {
int a, b, c, d;
cout << "Enter a, b, c, d: ";
cin >> a >> b >> c >> d;
if(a > b) {
if(a > c){
if ( a > d)
cout << a << ": a is greater!\n";
else
cout << d << ": d is greater\n";
} else {
if (c > d) {
cout << c << ": c is greater\n";
}
}
}
else {
if (b > c) {
if (b > d) {
cout << b << ": b is greater\n";
} else {
cout << d << ": d is greater\n";
}
} else {
if(c > d) {
cout << c << ": c is greater\n";
} else {
cout << d << ": d is greater\n";
}
```

```cpp
    }
  }
}
```

OUTPUT:

```
cd "/home/maqsood/My_Data/Code_Playground/Cpp/Cpp_maqsood@mr-maqsood:~/My_Data/Code_Playground/Cpp/Cpp_Practice$ cd "/home/maqsood/My_Data/Code_Playgr
maqsood@mr-maqsood:~/My_Data/Code_Playground/Cpp/Cpp_Practice$ cd "/home/maqsood/My_Data/Code_Playground/Cpp/Cpp_Practice/" && g++ classTask1.cpp -o c
lassTask1 && "/home/maqsood/My_Data/Code_Playground/Cpp/Cpp_Practice/"classTask1
Enter a, b, c, d: 1 4 2 1
4: b is greater
maqsood@mr-maqsood:~/My_Data/Code_Playground/Cpp/Cpp_Practice$
```

TASK 02:

```cpp
#include <iostream>
using namespace std;

int main() {
    int a, b, c, d, e;
    cout << "Enter a, b, c, d, e: ";
    cin >> a >> b >> c >> d >> e;

    int smallest, second, third, fourth, largest;

    // Find the smallest
    if (a <= b && a <= c && a <= d && a <= e) {
        smallest = a;
    } else if (b <= c && b <= d && b <= e) {
        smallest = b;
    } else if (c <= d && c <= e) {
        smallest = c;
    } else if (d <= e) {
        smallest = d;
    } else {
```

```
        smallest = e;
    }


    // Find the largest
    if (a >= b && a >= c && a >= d && a >= e) {
        largest = a;
    } else if (b >= c && b >= d && b >= e) {
        largest = b;
    } else if (c >= d && c >= e) {
        largest = c;
    } else if (d >= e) {
        largest = d;
    } else {
        largest = e;
    }


    // Find the second
    if (a != smallest && a != largest) {
        second = a;
    } else if (b != smallest && b != largest) {
        second = b;
    } else if (c != smallest && c != largest) {
        second = c;
    } else if (d != smallest && d != largest) {
        second = d;
    } else {
        second = e;
    }


    // Find the third
    if (a != smallest && a != largest && a != second) {
        third = a;
    } else if (b != smallest && b != largest && b != second) {
        third = b;
```

```cpp
        } else if (c != smallest && c != largest && c != second) {
            third = c;
        } else if (d != smallest && d != largest && d != second) {
            third = d;
        } else {
            third = e;
        }

        // Find the fourth
        if (a != smallest && a != largest && a != second && a != third) {
            fourth = a;
        } else if (b != smallest && b != largest && b != second && b != third) {
            fourth = b;
        } else if (c != smallest && c != largest && c != second && c != third) {
            fourth = c;
        } else if (d != smallest && d != largest && d != second && d != third) {
            fourth = d;
        } else {
            fourth = e;
        }

        // Find the fifth
        if (a != smallest && a != largest && a != second && a != third && a != fourth) {
            cout << a << ' ';
        } else if (b != smallest && b != largest && b != second && b != third && b != fourth) {
            cout << b << ' ';
        } else if (c != smallest && c != largest && c != second && c != third && c != fourth) {
```

```cpp
        cout << c << ' ';
    } else if (d != smallest && d != largest && d != second &&
d != third && d != fourth) {
        cout << d << ' ';
    } else {
        cout << e << ' ';
    }


    cout << smallest << ' ' << second << ' ' << third << ' ' <<
fourth << ' ' << largest << '\n';


    return 0;
}
```

OUTPUT:

TASK 03:

```cpp
#include <iostream>
using namespace std;

int main(void) {
int quartely_water_bill, average_bill = 0;
cout << "Enter your bill of your last four quaterly water: ";
cin >> quartely_water_bill;

average_bill = quartely_water_bill / 4;
if (average_bill >= 75) {
```

```cpp
cout << "$" << average_bill << " Bill.. Too much water is
used!\n";
} else {
if(average_bill >= 25 && average_bill < 75) {
cout << "$" << average_bill << " Bill.. Typical amount of water
is being used!\n";
} else {
cout << "$" << average_bill << " Bill.. Praising the user for
conserving water!\n";
}
}
}
```

OUTPUT: