

**Department of Artificial Intelligence and Multimedia Gaming  
Fundamentals of Programming**

**(Fall-2025)**

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***Section: D***

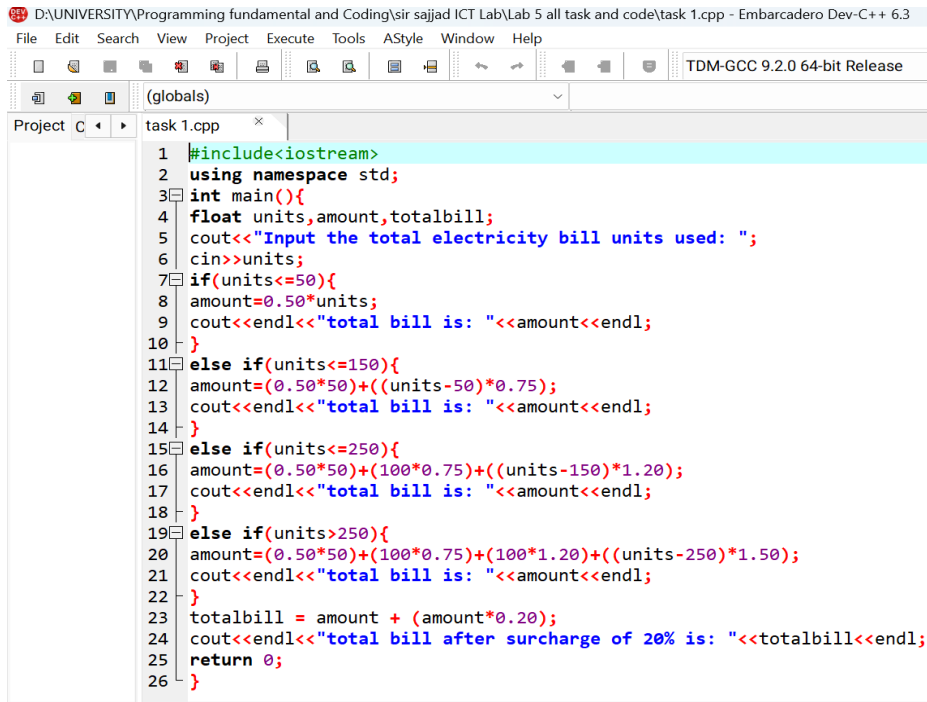
***Sap Id: 5000001141***

***LAB No. 06***

***LECTURER: SAJJAD ALI RAJPER***

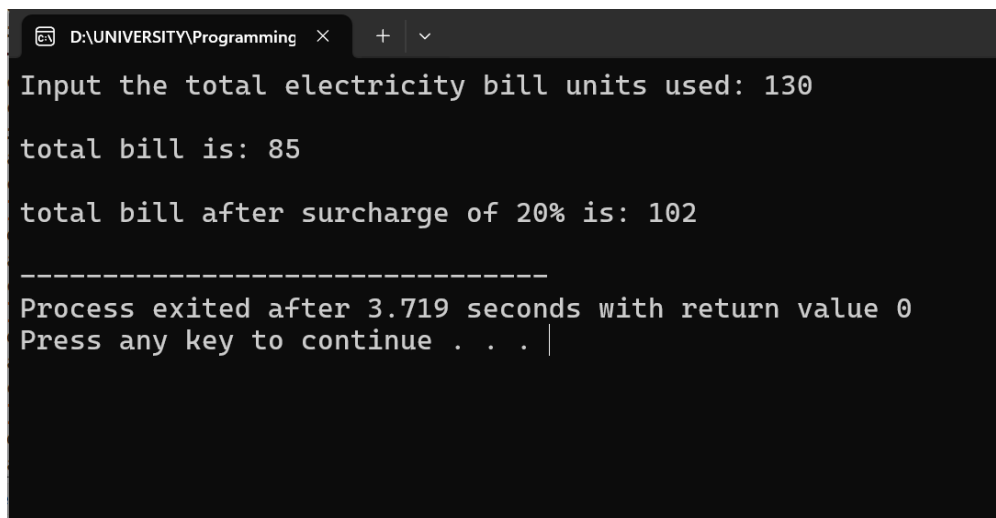
## Task 1:

## Code:



```
1 #include<iostream>
2 using namespace std;
3 int main(){
4     float units,amount,totalbill;
5     cout<<"Input the total electricity bill units used: ";
6     cin>>units;
7     if(units<=50){
8         amount=0.50*units;
9         cout<<endl<<"total bill is: "<<amount<<endl;
10    }
11    else if(units<=150){
12        amount=(0.50*50)+((units-50)*0.75);
13        cout<<endl<<"total bill is: "<<amount<<endl;
14    }
15    else if(units<=250){
16        amount=(0.50*50)+(100*0.75)+((units-150)*1.20);
17        cout<<endl<<"total bill is: "<<amount<<endl;
18    }
19    else if(units>250){
20        amount=(0.50*50)+(100*0.75)+(100*1.20)+((units-250)*1.50);
21        cout<<endl<<"total bill is: "<<amount<<endl;
22    }
23    totalbill = amount + (amount*0.20);
24    cout<<endl<<"total bill after surcharge of 20% is: "<<totalbill<<endl;
25    return 0;
26 }
```

## Output:



```
D:\UNIVERSITY\Programming >
Input the total electricity bill units used: 130

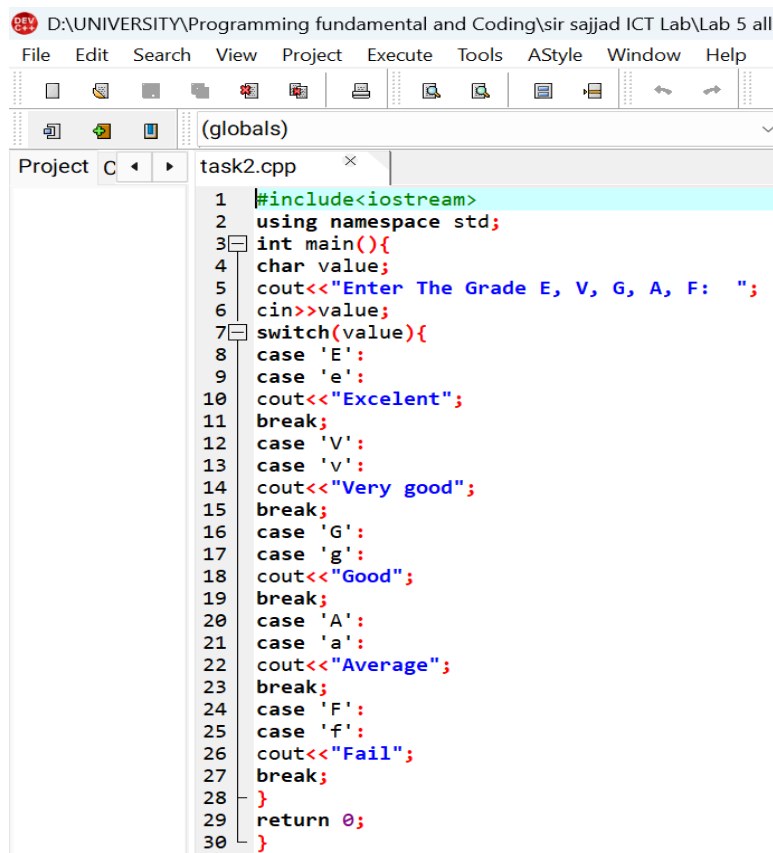
total bill is: 85

total bill after surcharge of 20% is: 102

-----
Process exited after 3.719 seconds with return value 0
Press any key to continue . . . |
```

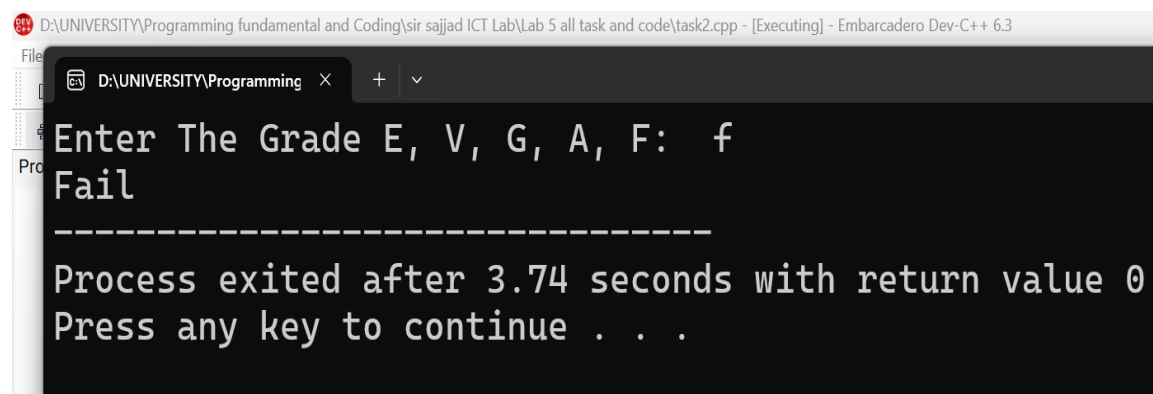
## Task 2:

## Code:



```
1 #include<iostream>
2 using namespace std;
3 int main(){
4     char value;
5     cout<<"Enter The Grade E, V, G, A, F: ";
6     cin>>value;
7     switch(value){
8     case 'E':
9     case 'e':
10    cout<<"Excelent";
11    break;
12    case 'V':
13    case 'v':
14    cout<<"Very good";
15    break;
16    case 'G':
17    case 'g':
18    cout<<"Good";
19    break;
20    case 'A':
21    case 'a':
22    cout<<"Average";
23    break;
24    case 'F':
25    case 'f':
26    cout<<"Fail";
27    break;
28    }
29    return 0;
30 }
```

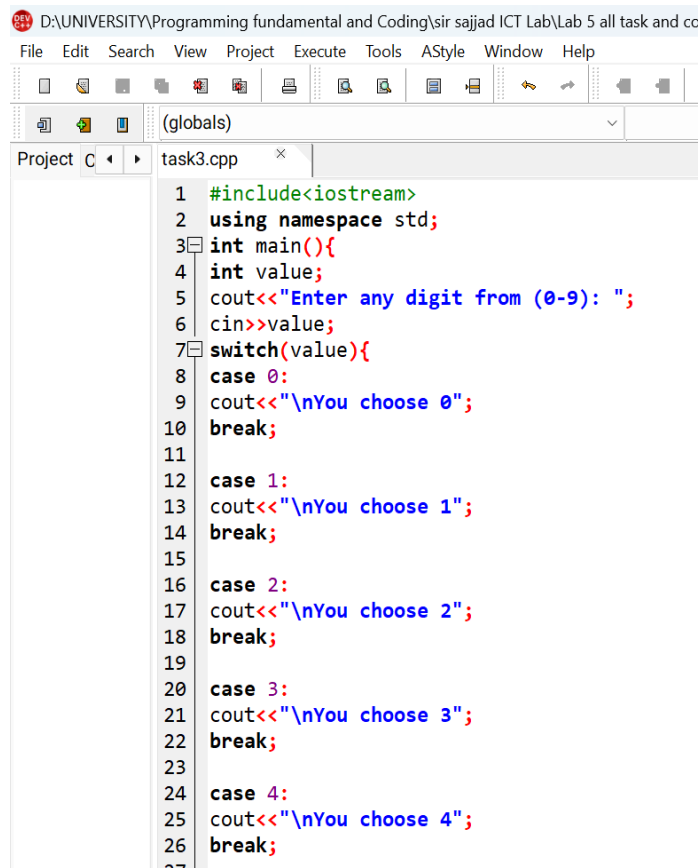
## Output:



```
Enter The Grade E, V, G, A, F: f
Fail
-----
Process exited after 3.74 seconds with return value 0
Press any key to continue . . .
```

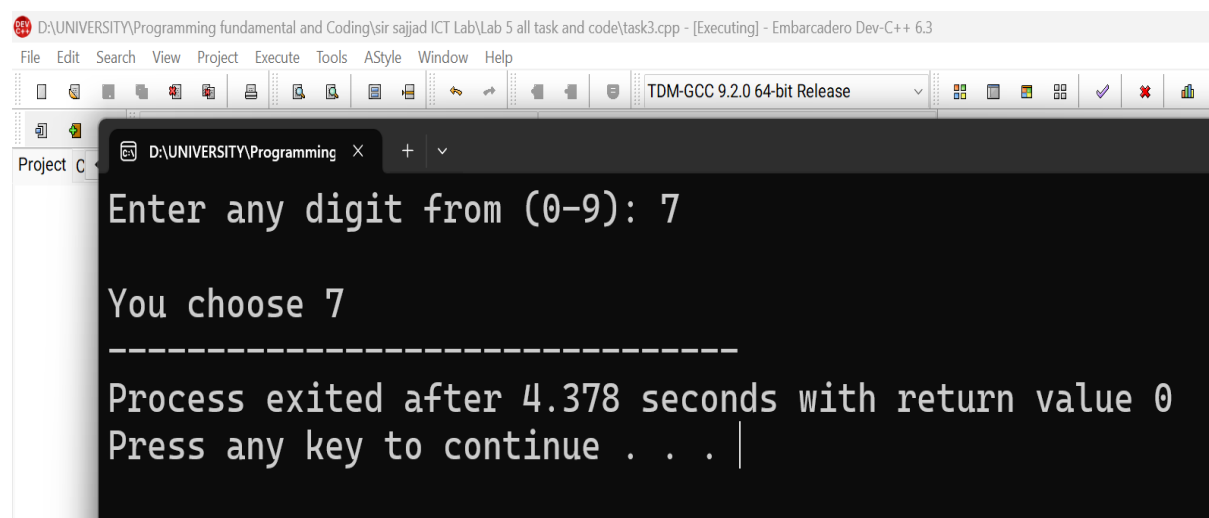
## Task 3:

## Code:



```
1 #include<iostream>
2 using namespace std;
3 int main(){
4     int value;
5     cout<<"Enter any digit from (0-9): ";
6     cin>>value;
7     switch(value){
8     case 0:
9         cout<<"\nYou choose 0";
10        break;
11
12        case 1:
13            cout<<"\nYou choose 1";
14            break;
15
16        case 2:
17            cout<<"\nYou choose 2";
18            break;
19
20        case 3:
21            cout<<"\nYou choose 3";
22            break;
23
24        case 4:
25            cout<<"\nYou choose 4";
26            break;
27    }
```

## Output:



```
D:\UNIVERSITY\Programming fundamental and Coding\sir sajjad ICT Lab\Lab 5 all task and code\task3.cpp - [Executing] - Embarcadero Dev-C++ 6.3
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 9.2.0 64-bit Release
D:\UNIVERSITY\Programming
Enter any digit from (0-9): 7
You choose 7
-----
Process exited after 4.378 seconds with return value 0
Press any key to continue . . . |
```

## Task 4

### Code:

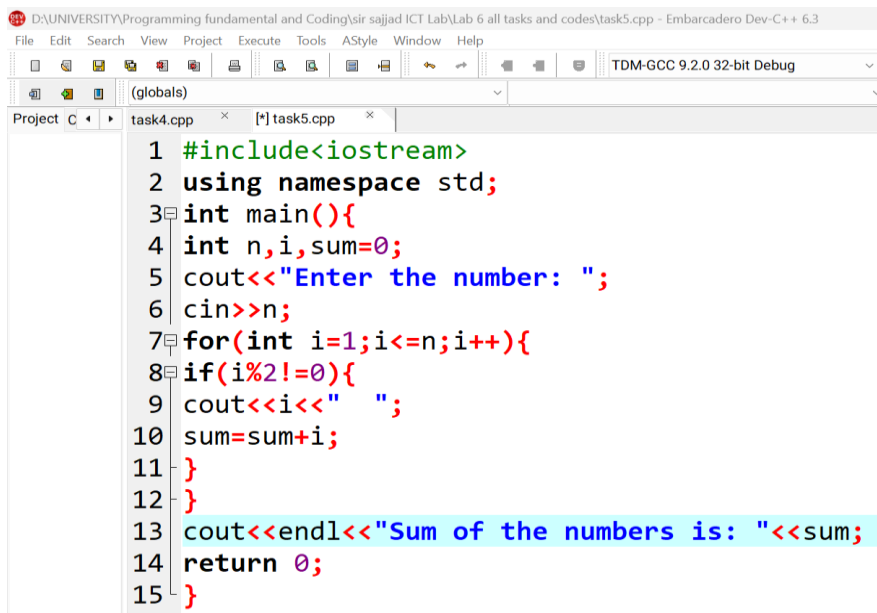
```
[*] task4.cpp
1  #include<iostream>
2  using namespace std;
3  int main(){
4  int n;
5  cout<<"Enter the number: ";
6  cin>>n;
7  for(int i=1;i<=n;i++){
8  cout<<i<<" ";
9  }
10 return 0;
11 }
```

### Output:

```
NIVERSITY\Programming fundamental and Coding\sir sajjad ICT Lab\Lab 6 all tasks and codes\task4.cpp - [Executing] - Embarcadero Dev-C++ 6.3
jit Search View Project Execute Tools AStyle Window Help
D:\UNIVERSITY\Programming x + v
Enter the number: 20
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 1
6 17 18 19 20
-----
Process exited after 6.733 seconds with return value 0
Press any key to continue . . .
```

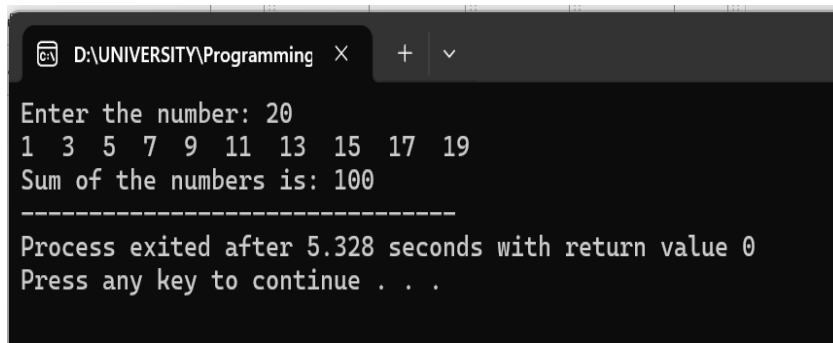
## Task 5

### Code:



```
D:\UNIVERSITY\Programming fundamental and Coding\sir sajjad ICT Lab\Lab 6 all tasks and codes\task5.cpp - Embarcadero Dev-C++ 6.3
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 9.2.0 32-bit Debug
(globals)
Project C task4.cpp task5.cpp
1 #include<iostream>
2 using namespace std;
3 int main(){
4     int n,i,sum=0;
5     cout<<"Enter the number: ";
6     cin>>n;
7     for(int i=1;i<=n;i++){
8         if(i%2!=0){
9             cout<<i<<" ";
10            sum=sum+i;
11        }
12    }
13    cout<<endl<<"Sum of the numbers is: "<<sum;
14    return 0;
15 }
```

### Output:



```
D:\UNIVERSITY\Programming X + v
Enter the number: 20
1 3 5 7 9 11 13 15 17 19
Sum of the numbers is: 100
-----
Process exited after 5.328 seconds with return value 0
Press any key to continue . . .
```

## Task 6

### Code:

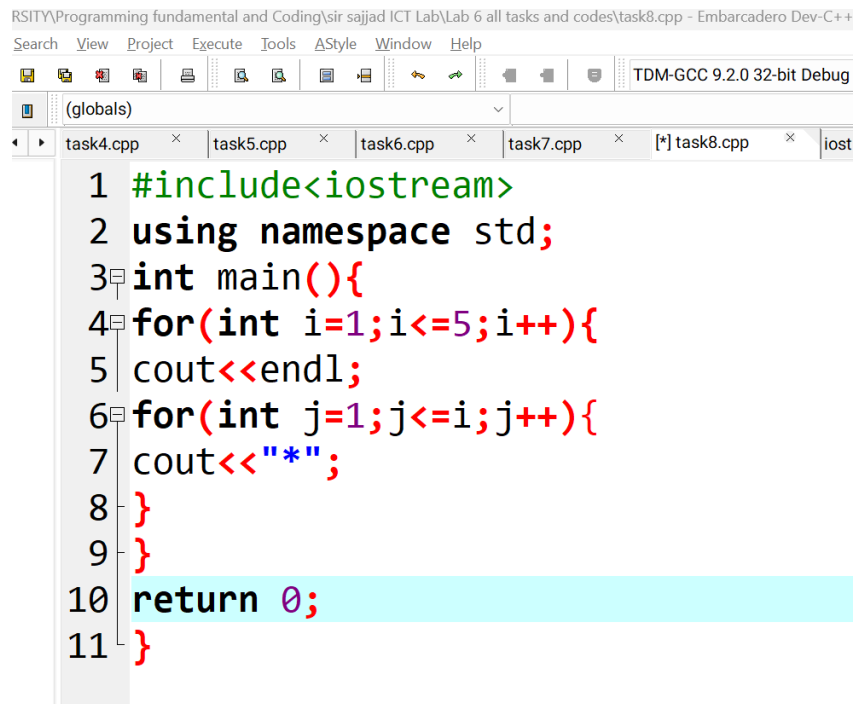
```
task4.cpp task5.cpp [*] task6.cpp
1 #include<iostream>
2 using namespace std;
3 int main(){
4     int n;
5     cout<<"Enter The Number: ";
6     cin>>n;
7     for(int i=n;i>=1;i--){
8         if(i%2!=0){
9             cout<<i<<" ";
10        }
11    }
12    return 0;
13 }
```

### Output:

```
D:\UNIVERSITY\Programming
Enter The Number: 20
19 17 15 13 11 9 7 5 3 1
-----
Process exited after 5.023 seconds with return value 0
Press any key to continue . . .
```

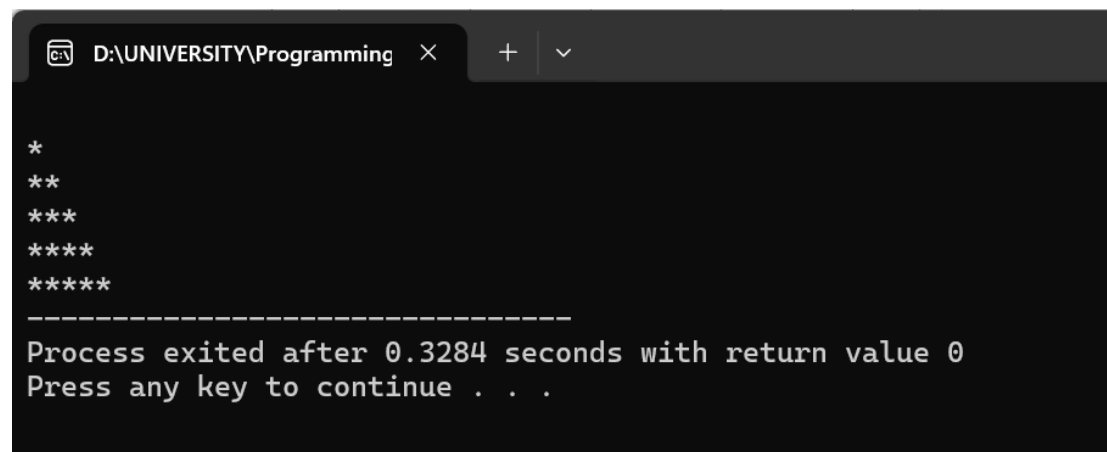
## Task 8

### Code:



```
1 #include<iostream>
2 using namespace std;
3 int main(){
4     for(int i=1;i<=5;i++){
5         cout<<endl;
6         for(int j=1;j<=i;j++){
7             cout<<"*";
8         }
9     }
10    return 0;
11 }
```

### Output:



```
*
**
***
****
*****
-----
Process exited after 0.3284 seconds with return value 0
Press any key to continue . . .
```