

PF LAB TASKS

QUESTION NO 1:

The screenshot displays a C++ IDE with the source code for 'scenario lab task.cpp' on the left and the program's execution output in the console on the right. The code defines a program that asks for the number of users, validates it, collects user names, and calculates the total cost based on ticket and popcorn prices.

```
1 #include<iostream>
2 using namespace std;
3 int main()
4 {
5     int ticketprice=15;
6     int popcornprice=10,userno;
7     cout<<"how many users attend the event? ";
8     cin>>userno;
9     if(userno>10)
10    {
11        cout<<"error: no more than 10 users allowed." <<endl;
12        return 1;
13    }
14    string username[10];
15    int totalcost;
16    for(int i=0;i<userno;++i)
17    {
18        cout<<"enter user names:"<<i+1<<":";
19        cin>>username[i];
20        int usercost=ticketprice+popcornprice;
21        totalcost+=usercost;
22        cout<<username[i]<<"ticketprice: $"<<ticketprice<<"popcornprice: $"<<popcornprice<<"totalcost"<<usercost<<endl;
23        cout<<"users name for the event:"<<endl;
24    }
25    for(int i=0;i<userno;i++)
26    {cout<<"users "<<i+1<<":"<<username[i]<<endl;
27    }
28    cout<<"totalcost for all users: $"<<totalcost<<endl;
29    return 0;
30 }
```

The console output shows the program's execution with user inputs: 2, 3, and 4 users. It displays individual user costs and the final total cost of \$100. The process exited after 23.51 seconds with a return value of 0.

```
users name for the event:
enter user names:2:saira
sairaticketprice: $15popcornprice: $10totalcost25
users name for the event:
enter user names:3:khola
kholaticketprice: $15popcornprice: $10totalcost25
users name for the event:
enter user names:4:eman
emanticketprice: $15popcornprice: $10totalcost25
users name for the event:
users 1:aqdus
users 2:saira
users 3:khola
users 4:eman
totalcost for all users: $100

-----
Process exited after 23.51 seconds with return value 0
Press any key to continue . . .
```

Compilation results show 0 errors and 0 warnings. The output file is 'C:\Users\asher imtiaz\OneDrive\Desktop\scenario lab task.exe' with a size of 2.25686264038086 MiB and a compilation time of 1.42s.

```
Compilation results...
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- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\asher imtiaz\OneDrive\Desktop\scenario lab task.exe
- Output Size: 2.25686264038086 MiB
- Compilation Time: 1.42s
```

QUESTION NO 2.

```
3 int main()
4 {
5     int maxstudents=15;
6     string names[maxstudents];
7     int entryfee=60,snackcost=40,totalcost=0;
8     int numstudents;
9     cout<<"how many students will attend the gamenight? ";
10    cin>>numstudents;
11    if(numstudents>maxstudents)
12    {
13        cout<<"error: no more students allowed." <<endl;
14        return 1;
15    }
16    for(int i=0;i<numstudents;i++)
17    {
18        cout<<"enter names for students:"<<i+1<<":"<<endl;
19        cin>>names[i];
20    }
21    cout<<"users names for the gamenight : "<<endl;
22    for(int i=0;i<numstudents;i++)
23    {
24        cout<<"users "<< i+1<<":"<<names[i]<<endl;
25        int studentcost=entryfee+snackcost;
26        cout<<"totalcost for : "<<names[i]<<":"<<studentcost<<"PKR"<<endl;
27        totalcost+=studentcost;
28    }
29    cout<<"total cost for all students: "<<totalcost <<"PKR"<<endl;
30    return 0;
31 }
32
```

Compilation results...

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\asher imtiaz\OneDrive\Desktop\scenario lab task.exe
- Output Size: 2.25686264038086 MiB
- Compilation Time: 1.39s

Process exited after 8.681 seconds with return value 0
Press any key to continue . . .