



**INTERNATIONAL ISLAMIC UNIVERSITY, ISLAMABAD**

**DEPARTMENT OF SOFTWARE ENGINEERING**

**OOP PROJECT**

**SECTION: A**

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**COURSE TITLE:** OOP

**COURSE CODE:** CS -211

**TITLE:                    EVENT MANAGEMENT SYSTEM**

**Topics Covered:**

- Inheritance
- Polymorphism
- Operator overloading
- File reading and writing
- Exception Handling

**Menu Options:**

1. Display Information of All Events
2. Display Information of A Particular Event
3. Display Information of Popular Events
4. Display Information of Cheapest Event
5. Display Information of Largest Event
6. Display Events Occurring On Same Date
7. Update Information of An Event
8. Write Information To File 'Output.txt'
9. Display Revenue Generated
  - Display Revenue Generated From All Events
  - Display Revenue Generated From A Particular Event
  - Display Revenue Generated From All Workshop Events
  - Display Revenue Generated From All Exhibition Events
  - Show Details For The Event That Generated Highest Revenue
  - Show Details For The Event That Generated Lowest Revenue
10. Exit

## **SOURCE CODE:**

### **Event.h:**

```
#pragma once
#include<string>
using namespace std;
class Event
{
    private:
        string name;
        string date;
        string location;
        int price_per_attendee;
        int no_of_attendees;
    public:
        Event(string n,string d,string l,int noa,float p);
        virtual bool IsWorkshop()=0;
        virtual bool IsPopular()=0;
        virtual string Attribute1()=0;
        virtual string TypeOfEvent()=0;
        virtual void Display();
        virtual void Get();
        bool operator==(Event& e);
        virtual int tellAwards();
        virtual float tellRating();
        int RevenueGenerated()
        {
            return price_per_attendee*no_of_attendees;
        }
        string tellName()
        {
            return name;
        }
        string tellDate()
        {
            return date;
        }
        string tellLocation()
        {
            return location;
        }
        float tellPrice()
        {
            return price_per_attendee;
        }
        int tellAttendees()
        {
            return no_of_attendees;
        }
};
```

**Event.cpp:**

```
#include"Event.h"
#include<iostream>
using namespace std;
Event::Event(string n,string d,string l,int noa,float p)
{
    name=n;
    date=d;
    location=l;
    no_of_attendees=noa;
    price_per_attendee=p;
}
void Event::Display()
{
    cout<<endl<<"\t"<<"o Information of "<<name<<" Event:";
    cout<<endl<<"\t"<<"Name: "<<name<<endl;
    cout<<"\t"<<"Date: "<<date<<endl;
    cout<<"\t"<<"Location: "<<location<<endl;
    cout<<"\t"<<"Number of Attendees: "<<no_of_attendees<<endl;
    cout<<"\t"<<"Price Per Attendee: "<<price_per_attendee<<endl;
}
void Event::Get()
{
    cout<<endl<<"\t"<<"Enter Name: ";
    getline(cin,name);
    cout<<"\t"<<"Enter date: ";
    getline(cin,date);
    cout<<"\t"<<"Enter location: ";
    getline(cin,location);
    do
    {
        cout<<"\t"<<"Enter No Of Attendees: ";
        cin>>no_of_attendees;
    }while(no_of_attendees<0);
    do
    {
        cout<<"\t"<<"Enter Price Per Attendee: ";
        cin>>price_per_attendee;
    }while(price_per_attendee<0);
}
bool Event::operator==(Event& e)
{
    if(date==e.date)
        return true;
    else
        return false;
}
int Event::tellAwards()
{
    return 0;
}
float Event::tellRating()
{
    return 0;
}
```

**Workshop.h:**

```
#include"Event.h"
#include<string>
class Workshop:public Event
{
    private:
        string instructor;
        int awards_won;
    public:
        Workshop(string n,string d,string l,int noa,float p,string i,int a);
        void Display();
        void Get();
        bool IsPopular()
        {
            if(awards_won>8)
                return true;
            else
                return false;
        }
        bool IsWorkshop()
        {
            return true;
        }
        string Attribute1()
        {
            return instructor;
        }
        int tellAwards()
        {
            return awards_won;
        }
        string TypeOfEvent()
        {
            return "WORKSHOP";
        }
};
```

**Workshop.cpp:**

```
#include"Workshop.h"
#include<iostream>
using namespace std;
Workshop::Workshop(string n,string d,string l,int noa,float p,string i,int a):Event(n,d,l,noa,p)
{
    instructor=i;
    awards_won=a;
}
void Workshop::Display()
{
    Event::Display();
    cout<<"\t"<<"Instructor: "<<instructor<<endl;
    cout<<"\t"<<"Awards Won: "<<awards_won<<endl;
}
void Workshop::Get()
{
    Event::Get();
}
```

```

cout<<"\t"<<"Enter instructor Name: ";
cin.ignore();
getline(cin,instructor);
do
{
    cout<<"\t"<<"Enter Awards Won: ";
    cin>>awards_won;
} while(awards_won<0);
}

```

### **Exhibition.h:**

```

#include"Event.h"
#include<string>
class Exhibition:public Event
{
    private:
    string exhibitor;
    float rating;
    public:
    Exhibition(string n,string d,string l,int noa,float p,string e,float r);
    void Display();
    void Get();
    bool IsPopular()
    {
        if(rating>3.5)
            return true;
        else
            return false;
    }
    bool IsWorkshop()
    {
        return false;
    }
    string Attribute1()
    {
        return exhibitor;
    }
    float tellRating()
    {
        return rating;
    }
    string TypeOfEvent()
    {
        return "EXHIBITION";
    }
};

```

### **Exhibition.cpp:**

```

#include"Exhibition.h"
#include<iostream>
using namespace std;
Exhibition::Exhibition(string n,string d,string l,int noa,float p,string e,float r):Event(n,d,l,noa,p)
{
    exhibitor=e;
    rating=r;
}

```

```

}
void Exhibition::Display()
{
    Event::Display();
    cout<<"\t"<<"Exhibitor: "<<exhibitor<<endl;
    cout<<"\t"<<"Rating: "<<rating<<endl;
}
void Exhibition::Get()
{
    Event::Get();
    cout<<"\t"<<"Enter Exhibitor Name: ";
    cin.ignore();
    getline(cin,exhibitor);
    do
    {
        cout<<"\t"<<"Enter Rating: ";
        cin>>rating;
    }while(rating<0);
}

```

### **Venue.h:**

```

#include"Event.h"
#include"Workshop.h"
#include"Exhibition.h"
const int MAX=10;
class Venue
{
    private:
        Event *E[MAX];
    public:
        void Read();
        void DisplayData();
        void FindEvent();
        void PopularEvent();
        void CheapestEvent();
        void LargestEvent();
        void EventOnSameDay();
        void Update();
        void WriteToFile();
        void WriteToOutputFile();
        void Revenue_Generated();
        void Revenue_OfAnEvent();
        void RevenueWorkshop();
        void ReveueExhibition();
        void GREATESTRevenue();
        void LowestRevenue();
        ~Venue();
};

```

### **Venue.cpp:**

```

#include"Venue.h"
#include<string>
#include<fstream>
#include<iostream>
using namespace std;

```

```

void Venue::Read()
{
    string s1,s2,s3,s4,s5,s6,s7,s8;
    ifstream file1("Event.txt");
    for(int i=0;i<MAX;i++)
    {
        getline(file1,s1,',');
        getline(file1,s2,',');
        getline(file1,s3,',');
        getline(file1,s4,',');
        getline(file1,s5,',');
        getline(file1,s6,',');
        getline(file1,s7,',');
        getline(file1,s8);
        if(s1=="WORKSHOP")
            E[i]=new Workshop(s2,s3,s4,stoi(s5),stoi(s6),s7,stoi(s8));
        else
            E[i]=new Exhibition(s2,s3,s4,stoi(s5),stoi(s6),s7,stof(s8));
    }
    file1.close();
}

void Venue::DisplayData()
{
    int b=0;
    int c=0;
    cout<<endl<<"=> INFORMATION OF ALL EVENTS: "<<endl;
    cout<<endl<<"=> Information Of All Workshops:"<<endl;
    for(int i=0;i<MAX;i++)
    {
        if(E[i]->IsWorkshop())
        {
            b++;
            E[i]->Display();
        }
    }
    if(b==0)
        cout<<endl<<"\t"<<"o No Workshops Booked."<<endl;
    cout<<endl<<"=> Information Of All Exhibitions:"<<endl;
    for(int i=0;i<MAX;i++)
    {
        if(!E[i]->IsWorkshop())
        {
            c++;
            E[i]->Display();
        }
    }
    if(c==0)
        cout<<endl<<"\t"<<"o No Exhibitions Booked."<<endl;
    cout<<endl<<"=> Total Workshops Booked: "<<b<<endl;
    cout<<endl<<"=> Total Exhibitions Booked: "<<c<<endl;
    cout<<endl<<"=> Total Booked Events: "<<b+c<<endl;
}

void Venue::FindEvent()
{
    string a;

```



```

cout<<endl<<"=> ENTER NAME OF EVENT: ";
cin.ignore();
getline(cin,a);
bool found=false;
for(int i=0;i<MAX&&found==false;i++)
{
    if(a==E[i]->tellName())
    {
        E[i]->Display();
        found=true;
    }
}
if(!found)
cout<<endl<<"o Event Not Found."<<endl;
}

void Venue::PopularEvent()
{
    int a=0;
    bool found=false;
    cout<<endl<<"=> INFORMATION OF POPULAR EVENT(S): "<<endl;
    for(int i=0;i<MAX;i++)
    {
        if(E[i]->IsPopular())
        {
            a++;
            E[i]->Display();
            found=true;
        }
    }
    cout<<endl<<"=> Total Popular Events Booked: "<<a<<endl;
    if(!found)
    cout<<endl<<"o No Popular Event Found."<<endl;
}

void Venue::LargestEvent()
{
    int a=E[0]->tellAttendees();
    int b=0;
    for(int i=1;i<MAX;i++)
    {
        if(a<E[i]->tellAttendees())
        {
            a=E[i]->tellAttendees();
            b=i;
        }
    }
    cout<<endl<<"=> INFORMATION OF LARGEST EVENT: "<<endl;
    E[b]->Display();
}

void Venue::CheapestEvent()
{
    float a=E[0]->tellPrice();
    int b=0;
    for(int i=1;i<MAX;i++)
    {
        if(a>E[i]->tellPrice())

```

```

        {
            a=E[i]->tellPrice();
            b=i;
        }
    }
    cout<<endl<<"=> INFORMATION OF CHEAPEST EVENT: "<<endl;
    E[b]->Display();
}
void Venue::EventOnSameDay()
{
    int a=0;
    string t1,t2;
    bool found=false;
    cout<<endl<<"=> INFORMATION OF EVENTS ON SAME DAY: "<<endl;
    for(int i=0;i<MAX;i++)
    {
        for(int j=i+1;j<MAX;j++)
        {
            t1=E[i]->tellDate();
            t2=E[j]->tellDate();
            if(t1==t2)
            {
                a++;
                cout<<endl<<"o Events Occurring On Same Day: "<<E[i]->tellName()<<" and
" <<E[j]->tellName()<<endl;
                E[i]->Display();
                E[j]->Display();
                found=true;
            }
        }
    }
    cout<<endl<<"=> Set Of Events Occurring On Same Day: "<<a<<endl;
}

void Venue::Update()
{
    string title;
    bool found=false;
    cout<<endl<<"=> ENTER NAME OF EVENT: ";
    cin.ignore();
    getline(cin,title);
    for(int i=0;i<MAX&&found==false;i++)
    {
        if(title==E[i]->tellName())
        {
            cout<<endl<<"=> Current Information Stored for "<<E[i]->tellName()<<" Event: "<<endl;
            E[i]->Display();
            cout<<endl<<"=> Enter Updated Information: "<<endl;
            E[i]->Get();
            WriteToFile();
            cout<<endl<<"o Information Updated Successfully."<<endl;
            found=true;
        }
    }
    if(!found)

```

```

        cout<<endl<<"o Event Not Found."<<endl;
    }
void Venue::WriteToFile()
{
    ofstream file1("Event.txt");
    for(int i=0;i<MAX;i++)
    {
        file1<<E[i]->TypeOfEvent()<<":"<<E[i]->tellName()<<":"<<E[i]->tellDate()<<":"<<E[i]->tellLocati
on()<<":"<<E[i]->tellPrice()<<":"<<E[i]->tellAttendees()<<":"<<E[i]->Attribute1()<<":";
        if(E[i]->IsWorkshop())
            file1<<E[i]->tellAwards()<<endl;
        else
            file1<<E[i]->tellRating()<<endl;
    }
}
void Venue::WriteToOutputFile()
{
    ofstream file1("Output.txt");
    for(int i=0;i<MAX;i++)
    {
        file1<<E[i]->TypeOfEvent()<<":"<<E[i]->tellName()<<":"<<E[i]->tellDate()<<":"<<E[i]->tellLocati
on()<<":"<<E[i]->tellPrice()<<":"<<E[i]->tellAttendees()<<":"<<E[i]->Attribute1()<<":";
        if(E[i]->TypeOfEvent()=="WORKSHOP")
            file1<<E[i]->tellAwards()<<endl;
        else
            file1<<E[i]->tellRating()<<endl;
    }
    cout<<endl<<"o Information Written Successfully.";
}
void Venue::Revenue_Generated()
{
    int total;
    for(int i=0;i<MAX;i++)
    {
        cout<<endl<<"=> Revenue Generated From "<<E[i]->tellName()<<" :
"<<E[i]->RevenueGenerated()<<endl;
        total=total+(E[i]->RevenueGenerated());
    }
    cout<<endl<<"o Total Revenue Generated From All Events: "<<total<<endl;
}
void Venue::RevenueOfAnEvent()
{
    string a;
    cout<<endl<<"=> ENTER NAME OF EVENT: ";
    cin.ignore();
    getline(cin,a);
    bool found=false;
    for(int i=0;i<MAX&&found==false;i++)
    {
        if(a==E[i]->tellName())
        {
            cout<<endl<<"o Revenue Generated: "<<E[i]->RevenueGenerated()<<endl;
            found=true;
        }
    }
}

```

```

    }
}
if(!found)
    cout<<endl<<"o Event Not Found."<<endl;
}
void Venue::RevenueWorkshop()
{
    int total;
    bool found=false;
    for(int i=0;i<MAX;i++)
    {
        if(E[i]->IsWorkshop())
        {
            cout<<endl<<"=> Workshop Booked: "<<E[i]->tellName()<<endl;
            total=total+E[i]->RevenueGenerated();
            found=true;
        }
    }
    if(found)
        cout<<endl<<"o Total Revenue Generated From Workshops: "<<total<<endl;
    else
        cout<<endl<<"o No Workshops Found."<<endl;
}
void Venue::ReveueExhibition()
{
    int total;
    bool found=false;
    for(int i=0;i<MAX;i++)
    {
        if(!E[i]->IsWorkshop())
        {
            cout<<endl<<"=> Exhibition Booked: "<<E[i]->tellName()<<endl;
            total=total+E[i]->RevenueGenerated();
            found=true;
        }
    }
    if(found)
        cout<<endl<<"o Total Revenue Generated: "<<total<<endl;
    else
        cout<<endl<<"o No Exhibitions Found."<<endl;
}
void Venue::GreatestRevenue()
{
    int a=E[0]->RevenueGenerated();
    int b=0;
    for(int i=1;i<MAX;i++)
    {
        if(a<E[i]->RevenueGenerated())
        {
            a=E[i]->RevenueGenerated();
            b=i;
        }
    }
    cout<<endl<<"=> Highest Revenue Obtained From "<<E[b]->tellName()<<" : "<<endl;
    E[b]->Display();
}

```

```

        cout<<endl<<"\t"<<"o Revenue Generated: "<<a<<endl;
    }
void Venue::LowestRevenue()
{
    int a=E[0]->RevenueGenerated();
    int b=0;
    for(int i=1;i<MAX;i++)
    {
        if(a>E[i]->RevenueGenerated())
        {
            a=E[i]->RevenueGenerated();
            b=i;
        }
    }
    cout<<endl<<"=> Lowest Revenue Obtained From "<<E[b]->tellName()<<" : "<<endl;
    E[b]->Display();
    cout<<endl<<"\t"<<"o Revenue Generated: "<<a<<endl;
}
Venue::~~Venue()
{
    for(int i=0;i<MAX;i++)
    {
        delete E[i];
    }
}

```

### **main.cpp:**

```

#include "Venue.h"
#include <iostream>
using namespace std;
class InvalidInput
{
public:
    void what()
    {
        cout<<endl<<"=> Invalid Input.Try Again!"<<endl;
    }
};

int main()
{
    Venue V;
    V.Read();
    int choice;
    cout<<"-----WELCOME TO THE EVENT MANAGEMENT SYSTEM !-----"<<endl;
    do
    {
        try
        {
            cout<<endl<<endl<<"*****EVENT MANAGEMENT
SYSTEM*****"<<endl;
            cout<<endl<<"\t"<<"\t"<<"MENU OPTIONS"<<endl;
            cout<<"=> Choose From The Following:"<<endl;
            cout<<"1. Display Information of All Events."<<endl;

```

```

cout<<"2. Display Information of A Particular Event."<<endl;
cout<<"3. Display Information of Popular Events."<<endl;
cout<<"4. Display Information of Cheapest Event."<<endl;
cout<<"5. Display Information of Largest Event."<<endl;
cout<<"6. Display Events Occurring On Same Date."<<endl;
cout<<"7. Update Information of An Event."<<endl;
cout<<"8. Write Information To File 'Output.txt'."<<endl;
cout<<"9. Display Revenue Generated."<<endl;
cout<<" - Display Revenue Generated From All Events."<<endl;
cout<<" - Display Revenue Generated From A Particular Event."<<endl;
cout<<" - Display Revenue Generated From All Workshop Events."<<endl;
cout<<" - Display Revenue Generated From All Exhibition Events."<<endl;
cout<<" - Show Details For The Event That Generated Highest Revenue."<<endl;
cout<<" - Show Details For The Event That Generated Lowest Revenue."<<endl;
cout<<"10. Exit."<<endl;
cout<<endl<<"Enter choice: ";
cin>>choice;
if (cin.fail())
{
    cin.clear();
    cin.ignore();
    throw InvalidInput();
}
if(choice==1)
{
    V.DisplayData();
}
else if(choice==2)
{
    V.FindEvent();
}
else if(choice==3)
{
    V.PopularEvent();
}
else if(choice==4)
{
    V.CheapestEvent();
}
else if(choice==5)
{
    V.LargestEvent();
}
else if(choice==6)
{
    V.EventOnSameDay();
}
else if(choice==7)
{
    V.Update();
}
else if(choice==8)
{
    V.WriteToOutputFile();
}

```

```

else if(choice==9)
{
    int c;
    do
    {
        cout<<endl<<"Choose From The Following:"<<endl;
        cout<<" 1. Display Revenue Generated From All Events."<<endl;
        cout<<" 2. Display Revenue Generated From A Particular Event."<<endl;
        cout<<" 3. Display Revenue Generated From All Workshop Events."<<endl;
        cout<<" 4. Display Revenue Generated From All Exhibition Events."<<endl;
        cout<<" 5. Show Details For The Event That Generated Highest Revenue."<<endl;
        cout<<" 6. Show Details For The Event That Generated Lowest Revenue."<<endl;
        cout<<" 7. Return to Menu."<<endl;
        cout<<endl<<"Enter choice: ";
        cin>>c;
        if (cin.fail())
        {
            cin.clear();
            cin.ignore();
            throw InvalidInput();
        }
        if (c == 1)
            V.Revenue_Generated();
        else if (c == 2)
            V.RevenueOfAnEvent();
        else if (c == 3)
            V.RevenueWorkshop();
        else if (c == 4)
            V.RevenueExhibition();
        else if(c==5)
            V.GreatestRevenue();
        else if(c==6)
            V.LowestRevenue();
    } while (c != 7);
}
}
catch (InvalidInput e)
{
    e.what();
}
} while (choice != 10);

return 0;
}

```

### **Event.txt:**

EXHIBITION:The Great Exhibition:2/5/2024:Museum of Contemporary Art,Lahore:1000:400:Jeff Koons and Andy Warhol:4.0

WORKSHOP:Pottery Workshop:2/5/2024:Pak-China Friendship Centre,Islamabad:800:700:Bushra Ansari and Kanwal:9

EXHIBITION:The Art Of Chaos:8/1/2024:Museum of Contemporary Arts,Lahore:500:3000:Jeff Koons and Andy Warhol:3.8

WORKSHOP:Photography Workshop:8/1/2024:Ataturk Avenue,Islamabad:1000:1500:Tariq Hussain and Wahaj Muneer:11

EXHIBITION:The Sound of Silence:12/6/2024:Lahore International Expo Centre,

Lahore:700:1300:Martin Lewis:3.2  
WORKSHOP:Entrepreneurship Workshop:18/1/2024:Serena Hotel, Islamabad:1200:2000:Tariq Amjad and Tom Holland:6  
EXHIBITION:The Power of Words:19/6/2024:Karachi Expo Centre, Karachi:700:1000:Martin Lewis:3.0  
WORKSHOP:Cooking Workshop:13/11/2024:Movenpick Hotel, Karachi:900:1500: Allen Shrewds:10  
EXHIBITION:The Light Within:17/5/2024:Faletti's Hotel, Lahore:1600:1000:Martin Lewis:3.3  
WORKSHOP:Creative Writing Workshop:23/9/2024:The Nishat Hotel, Lahore:9700:2000:Micheal Jordon:4

## Output:

```
-----WELCOME TO THE EVENT MANAGEMENT SYSTEM !-----

*****EVENT MANAGEMENT SYSTEM*****

      MENU OPTIONS
=> Choose From The Following:
1. Display Information of All Events.
2. Display Information of A Particular Event.
3. Display Information of Popular Events.
4. Display Information of Cheapest Event.
5. Display Information of Largest Event.
6. Display Events Occurring On Same Date.
7. Update Information of An Event.
8. Write Information To File 'Output.txt'.
9. Display Revenue Generated.
   - Display Revenue Generated From All Events.
   - Display Revenue Generated From A Particular Event.
   - Display Revenue Generated From All Workshop Events.
   - Display Revenue Generated From All Exhibition Events.
   - Show Details For The Event That Generated Highest Revenue.
   - Show Details For The Event That Generated Lowest Revenue.
10. Exit.

Enter choice: 1

=> INFORMATION OF ALL EVENTS:

=> Information Of All Workshops:

    o Information of Pottery Workshop Event:
    Name: Pottery Workshop
    Date: 2/5/2024
    Location: Pak-China Friendship Centre, Islamabad
    Number of Attendees: 800
    Price Per Attendee: 700
    Instructor: Bushra Ansari and Kanwal
    Awards Won: 9

    o Information of Photography Workshop Event:
    Name: Photography Workshop
    Date: 8/1/2024
    Location: Ataturk Avenue, Islamabad
```

```
    Location: Ataturk Avenue, Islamabad
    Number of Attendees: 1000
    Price Per Attendee: 1500
    Instructor: Tariq Hussain and Wahaj Muneer
    Awards Won: 11

    o Information of Entrepreneurship Workshop Event:
    Name: Entrepreneurship Workshop
    Date: 18/1/2024
    Location: Serena Hotel, Islamabad
    Number of Attendees: 1200
    Price Per Attendee: 2000
    Instructor: Tariq Amjad and Tom Holland
    Awards Won: 6

    o Information of Cooking Workshop Event:
    Name: Cooking Workshop
    Date: 13/11/2024
    Location: Movenpick Hotel, Karachi
    Number of Attendees: 900
    Price Per Attendee: 1500
    Instructor: Allen Shrewds
    Awards Won: 10

    o Information of Creative Writing Workshop Event:
    Name: Creative Writing Workshop
    Date: 23/9/2024
    Location: The Nishat Hotel, Lahore
    Number of Attendees: 9700
    Price Per Attendee: 2000
    Instructor: Micheal Jordon
    Awards Won: 4

=> Information Of All Exhibitions:

    o Information of The Great Exhibition Event:
    Name: The Great Exhibition
    Date: 2/5/2024
    Location: Museum of Contemporary Art, Lahore
    Number of Attendees: 1000
    Price Per Attendee: 400
    Exhibitor: Jeff Koons and Andy Warhol
    Rating: 4
```



```

Rating: 4

o Information of The Art Of Chaos Event:
Name: The Art Of Chaos
Date: 8/1/2024
Location: Museum of Contemporary Arts,Lahore
Number of Attendees: 500
Price Per Attendee: 3000
Exhibitor: Jeff Koons and Andy Warhol
Rating: 3.8

o Information of The Sound of Silence Event:
Name: The Sound of Silence
Date: 12/6/2024
Location: Lahore International Expo Centre, Lahore
Number of Attendees: 700
Price Per Attendee: 1300
Exhibitor: Martin Lewis
Rating: 3.2

o Information of The Power of Words Event:
Name: The Power of Words
Date: 19/6/2024
Location: Karachi Expo Centre, Karachi
Number of Attendees: 700
Price Per Attendee: 1000
Exhibitor: Martin Lewis
Rating: 3

o Information of The Light Within Event:
Name: The Light Within
Date: 17/5/2024
Location: Faletti's Hotel, Lahore
Number of Attendees: 1600
Price Per Attendee: 1000
Exhibitor: Martin Lewis
Rating: 3.3

=> Total Workshops Booked: 5

=> Total Exhibitions Booked: 5

=> Total Booked Events: 10

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*****EVENT MANAGEMENT SYSTEM*****

MENU OPTIONS
=> Choose From The Following:
1. Display Information of All Events.
2. Display Information of A Particular Event.
3. Display Information of Popular Events.
4. Display Information of Cheapest Event.
5. Display Information of Largest Event.
6. Display Events Occurring On Same Date.
7. Update Information of An Event.
8. Write Information To File 'Output.txt'.
9. Display Revenue Generated.
   - Display Revenue Generated From All Events.
   - Display Revenue Generated From A Particular Event.
   - Display Revenue Generated From All Workshop Events.
   - Display Revenue Generated From All Exhibition Events.
   - Show Details For The Event That Generated Highest Revenue.
   - Show Details For The Event That Generated Lowest Revenue.
10. Exit.

Enter choice: 2

=> ENTER NAME OF EVENT: Pottery Workshop

o Information of Pottery Workshop Event:
Name: Pottery Workshop
Date: 2/5/2024
Location: Pak-China Friendship Centre,Islamabad
Number of Attendees: 800
Price Per Attendee: 700
Instructor: Bushra Ansari and Kanwal
Awards Won: 9

*****EVENT MANAGEMENT SYSTEM*****

MENU OPTIONS
=> Choose From The Following:
1. Display Information of All Events.
2. Display Information of A Particular Event.
3. Display Information of Popular Events.
4. Display Information of Cheapest Event.

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4. Display Information of Cheapest Event.
5. Display Information of Largest Event.
6. Display Events Occurring On Same Date.
7. Update Information of An Event.
8. Write Information To File 'Output.txt'.
9. Display Revenue Generated.
   - Display Revenue Generated From All Events.
   - Display Revenue Generated From A Particular Event.
   - Display Revenue Generated From All Workshop Events.
   - Display Revenue Generated From All Exhibition Events.
   - Show Details For The Event That Generated Highest Revenue.
   - Show Details For The Event That Generated Lowest Revenue.
10. Exit.

Enter choice: 3

=> INFORMATION OF POPULAR EVENT(S):

o Information of The Great Exhibition Event:
Name: The Great Exhibition
Date: 2/5/2024
Location: Museum of Contemporary Art,Lahore
Number of Attendees: 1000
Price Per Attendee: 400
Exhibitor: Jeff Koons and Andy Warhol
Rating: 4

o Information of Pottery Workshop Event:
Name: Pottery Workshop
Date: 2/5/2024
Location: Pak-China Friendship Centre,Islamabad
Number of Attendees: 800
Price Per Attendee: 700
Instructor: Bushra Ansari and Kanwal
Awards Won: 9

o Information of The Art Of Chaos Event:
Name: The Art Of Chaos
Date: 8/1/2024
Location: Museum of Contemporary Arts,Lahore
Number of Attendees: 500
Price Per Attendee: 3000
Exhibitor: Jeff Koons and Andy Warhol

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Exhibitor: Jeff Koons and Andy Warhol
Rating: 3.8

o Information of Photography Workshop Event:
Name: Photography Workshop
Date: 8/1/2024
Location: Ataturk Avenue,Islamabad
Number of Attendees: 1000
Price Per Attendee: 1500
Instructor: Tariq Hussain and Wahaj Muneer
Awards Won: 11

o Information of Cooking Workshop Event:
Name: Cooking Workshop
Date: 13/11/2024
Location: Movenpick Hotel, Karachi
Number of Attendees: 900
Price Per Attendee: 1500
Instructor: Allen Shrewds
Awards Won: 10

=> Total Popular Events Booked: 5

*****EVENT MANAGEMENT SYSTEM*****

MENU OPTIONS
=> Choose From The Following:
1. Display Information of All Events.
2. Display Information of A Particular Event.
3. Display Information of Popular Events.
4. Display Information of Cheapest Event.
5. Display Information of Largest Event.
6. Display Events Occurring On Same Date.
7. Update Information of An Event.
8. Write Information To File 'Output.txt'.
9. Display Revenue Generated.
   - Display Revenue Generated From All Events.
   - Display Revenue Generated From A Particular Event.
   - Display Revenue Generated From All Workshop Events.
   - Display Revenue Generated From All Exhibition Events.
   - Show Details For The Event That Generated Highest Revenue.
   - Show Details For The Event That Generated Lowest Revenue.

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- Show Details For The Event That Generated Lowest Revenue.
10. Exit.

Enter choice: 4

=> INFORMATION OF CHEAPEST EVENT:

    o Information of The Great Exhibition Event:
    Name: The Great Exhibition
    Date: 2/5/2024
    Location: Museum of Contemporary Art,Lahore
    Number of Attendees: 1000
    Price Per Attendee: 400
    Exhibitor: Jeff Koons and Andy Warhol
    Rating: 4

*****EVENT MANAGEMENT SYSTEM*****

    MENU OPTIONS
=> Choose From The Following:
1. Display Information of All Events.
2. Display Information of A Particular Event.
3. Display Information of Popular Events.
4. Display Information of Cheapest Event.
5. Display Information of Largest Event.
6. Display Events Occurring On Same Date.
7. Update Information of An Event.
8. Write Information To File 'Output.txt'.
9. Display Revenue Generated.
    - Display Revenue Generated From All Events.
    - Display Revenue Generated From A Particular Event.
    - Display Revenue Generated From All Workshop Events.
    - Display Revenue Generated From All Exhibition Events.
    - Show Details For The Event That Generated Highest Revenue.
    - Show Details For The Event That Generated Lowest Revenue.
10. Exit.

Enter choice: 5

=> INFORMATION OF LARGEST EVENT:

    o Information of Creative Writing Workshop Event:

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Enter choice: 5

=> INFORMATION OF LARGEST EVENT:

    o Information of Creative Writing Workshop Event:
    Name: Creative Writing Workshop
    Date: 23/9/2024
    Location: The Nishat Hotel, Lahore
    Number of Attendees: 9700
    Price Per Attendee: 2000
    Instructor: Micheal Jordon
    Awards Won: 4

*****EVENT MANAGEMENT SYSTEM*****

    MENU OPTIONS
=> Choose From The Following:
1. Display Information of All Events.
2. Display Information of A Particular Event.
3. Display Information of Popular Events.
4. Display Information of Cheapest Event.
5. Display Information of Largest Event.
6. Display Events Occurring On Same Date.
7. Update Information of An Event.
8. Write Information To File 'Output.txt'.
9. Display Revenue Generated.
    - Display Revenue Generated From All Events.
    - Display Revenue Generated From A Particular Event.
    - Display Revenue Generated From All Workshop Events.
    - Display Revenue Generated From All Exhibition Events.
    - Show Details For The Event That Generated Highest Revenue.
    - Show Details For The Event That Generated Lowest Revenue.
10. Exit.

Enter choice: 6

=> INFORMATION OF EVENTS ON SAME DAY:

    o Events Occurring On Same Day: The Great Exhibition and Pottery Workshop

    o Information of The Great Exhibition Event:
    Name: The Great Exhibition

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o Events Occurring On Same Day: The Great Exhibition and Pottery Workshop

    o Information of The Great Exhibition Event:
    Name: The Great Exhibition
    Date: 2/5/2024
    Location: Museum of Contemporary Art,Lahore
    Number of Attendees: 1000
    Price Per Attendee: 400
    Exhibitor: Jeff Koons and Andy Warhol
    Rating: 4

    o Information of Pottery Workshop Event:
    Name: Pottery Workshop
    Date: 2/5/2024
    Location: Pak-China Friendship Centre,Islamabad
    Number of Attendees: 800
    Price Per Attendee: 700
    Instructor: Bushra Ansari and Kanwal
    Awards Won: 9

o Events Occurring On Same Day: The Art Of Chaos and Photography Workshop

    o Information of The Art Of Chaos Event:
    Name: The Art Of Chaos
    Date: 8/1/2024
    Location: Museum of Contemporary Arts,Lahore
    Number of Attendees: 500
    Price Per Attendee: 3000
    Exhibitor: Jeff Koons and Andy Warhol
    Rating: 3.8

    o Information of Photography Workshop Event:
    Name: Photography Workshop
    Date: 8/1/2024
    Location: Ataturk Avenue,Islamabad
    Number of Attendees: 1000
    Price Per Attendee: 1500
    Instructor: Tariq Hussain and Wahaj Muneer
    Awards Won: 11

=> Set Of Events Occurring On Same Day: 2

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    MENU OPTIONS
=> Choose From The Following:
1. Display Information of All Events.
2. Display Information of A Particular Event.
3. Display Information of Popular Events.
4. Display Information of Cheapest Event.
5. Display Information of Largest Event.
6. Display Events Occurring On Same Date.
7. Update Information of An Event.
8. Write Information To File 'Output.txt'.
9. Display Revenue Generated.
    - Display Revenue Generated From All Events.
    - Display Revenue Generated From A Particular Event.
    - Display Revenue Generated From All Workshop Events.
    - Display Revenue Generated From All Exhibition Events.
    - Show Details For The Event That Generated Highest Revenue.
    - Show Details For The Event That Generated Lowest Revenue.
10. Exit.

Enter choice: 7

=> ENTER NAME OF EVENT: Pottery Workshop

=> Current Information Stored for Pottery Workshop Event:

    o Information of Pottery Workshop Event:
    Name: Pottery Workshop
    Date: 2/5/2024
    Location: Pak-China Friendship Centre,Islamabad
    Number of Attendees: 800
    Price Per Attendee: 700
    Instructor: Bushra Ansari and Kanwal
    Awards Won: 9

=> Enter Updated Information:

    Enter Name: Potters
    Enter date: 2/5/2024
    Enter location: Pak-China
    Enter No Of Attendees: 800
    Enter Price Per Attendee: 700
    Enter instructor Name: Bushra
    Enter Awards Won: 9

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=> Enter Updated Information:

    Enter Name: Potters
    Enter date: 2/5/2024
    Enter location: Pak-China
    Enter No Of Attendees: 800
    Enter Price Per Attendee: 700
    Enter Instructor Name: Bushra
    Enter Awards Won: 9

o Information Updated Successfully.

*****EVENT MANAGEMENT SYSTEM*****

    MENU OPTIONS
=> Choose From The Following:
1. Display Information of All Events.
2. Display Information of A Particular Event.
3. Display Information of Popular Events.
4. Display Information of Cheapest Event.
5. Display Information of Largest Event.
6. Display Events Occurring On Same Date.
7. Update Information of An Event.
8. Write Information To File 'Output.txt'.
9. Display Revenue Generated.
   - Display Revenue Generated From All Events.
   - Display Revenue Generated From A Particular Event.
   - Display Revenue Generated From All Workshop Events.
   - Display Revenue Generated From All Exhibition Events.
   - Show Details For The Event That Generated Highest Revenue.
   - Show Details For The Event That Generated Lowest Revenue.
10. Exit.

Enter choice: 8

o Information Written Successfully.

*****EVENT MANAGEMENT SYSTEM*****

    MENU OPTIONS
=> Choose From The Following:
1. Display Information of All Events.
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Choose From The Following:
1. Display Revenue Generated From All Events.
2. Display Revenue Generated From A Particular Event.
3. Display Revenue Generated From All Workshop Events.
4. Display Revenue Generated From All Exhibition Events.
5. Show Details For The Event That Generated Highest Revenue.
6. Show Details For The Event That Generated Lowest Revenue.
7. Return to Menu.

Enter choice: 2

=> ENTER NAME OF EVENT: The Light Within

o Revenue Generated: 1600000

Choose From The Following:
1. Display Revenue Generated From All Events.
2. Display Revenue Generated From A Particular Event.
3. Display Revenue Generated From All Workshop Events.
4. Display Revenue Generated From All Exhibition Events.
5. Show Details For The Event That Generated Highest Revenue.
6. Show Details For The Event That Generated Lowest Revenue.
7. Return to Menu.

Enter choice: 3

=> Workshop Booked: Pottery Workshop

=> Workshop Booked: Photography Workshop

=> Workshop Booked: Entrepreneurship Workshop

=> Workshop Booked: Cooking Workshop

=> Workshop Booked: Creative Writing Workshop

o Total Revenue Generated From Workshops: 1299195690

Choose From The Following:
1. Display Revenue Generated From All Events.
2. Display Revenue Generated From A Particular Event.
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Enter choice: 9

Choose From The Following:
1. Display Revenue Generated From All Events.
2. Display Revenue Generated From A Particular Event.
3. Display Revenue Generated From All Workshop Events.
4. Display Revenue Generated From All Exhibition Events.
5. Show Details For The Event That Generated Highest Revenue.
6. Show Details For The Event That Generated Lowest Revenue.
7. Return to Menu.

Enter choice: 1

=> Revenue Generated From The Great Exhibition : 400000

=> Revenue Generated From Pottery Workshop : 560000

=> Revenue Generated From The Art Of Chaos : 1500000

=> Revenue Generated From Photography Workshop : 1500000

=> Revenue Generated From The Sound of Silence : 910000

=> Revenue Generated From Entrepreneurship Workshop : 2400000

=> Revenue Generated From The Power of Words : 700000

=> Revenue Generated From Cooking Workshop : 1350000

=> Revenue Generated From The Light Within : 1600000

=> Revenue Generated From Creative Writing Workshop : 19400000

o Total Revenue Generated From All Events: 1342582810

Choose From The Following:
1. Display Revenue Generated From All Events.
2. Display Revenue Generated From A Particular Event.
3. Display Revenue Generated From All Workshop Events.
4. Display Revenue Generated From All Exhibition Events.
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Choose From The Following:
1. Display Revenue Generated From All Events.
2. Display Revenue Generated From A Particular Event.
3. Display Revenue Generated From All Workshop Events.
4. Display Revenue Generated From All Exhibition Events.
5. Show Details For The Event That Generated Highest Revenue.
6. Show Details For The Event That Generated Lowest Revenue.
7. Return to Menu.

Enter choice: 5

=> Highest Revenue Obtained From Creative Writing Workshop :

    o Information of Creative Writing Workshop Event:
    Name: Creative Writing Workshop
    Date: 23/9/2024
    Location: The Nishat Hotel, Lahore
    Number of Attendees: 9700
    Price Per Attendee: 2000
    Instructor: Micheal Jordon
    Awards Won: 4

    o Revenue Generated: 19400000

Choose From The Following:
1. Display Revenue Generated From All Events.
2. Display Revenue Generated From A Particular Event.
3. Display Revenue Generated From All Workshop Events.
4. Display Revenue Generated From All Exhibition Events.
5. Show Details For The Event That Generated Highest Revenue.
6. Show Details For The Event That Generated Lowest Revenue.
7. Return to Menu.

Enter choice: 6

=> Lowest Revenue Obtained From The Great Exhibition :

    o Information of The Great Exhibition Event:
    Name: The Great Exhibition
    Date: 2/5/2024
    Location: Museum of Contemporary Art, Lahore
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Location: Museum of Contemporary Art,Lahore
Number of Attendees: 1000
Price Per Attendee: 400
Exhibitor: Jeff Koons and Andy Warhol
Rating: 4

o Revenue Generated: 400000

Choose From The Following:
1. Display Revenue Generated From All Events.
2. Display Revenue Generated From A Particular Event.
3. Display Revenue Generated From All Workshop Events.
4. Display Revenue Generated From All Exhibition Events.
5. Show Details For The Event That Generated Highest Revenue.
6. Show Details For The Event That Generated Lowest Revenue.
7. Return to Menu.

Enter choice: 7

*****EVENT MANAGEMENT SYSTEM*****

MENU OPTIONS
=> Choose From The Following:
1. Display Information of All Events.
2. Display Information of A Particular Event.
3. Display Information of Popular Events.
4. Display Information of Cheapest Event.
5. Display Information of Largest Event.
6. Display Events Occurring On Same Date.
7. Update Information of An Event.
8. Write Information To File 'Output.txt'.
9. Display Revenue Generated.
- Display Revenue Generated From All Events.
- Display Revenue Generated From A Particular Event.
- Display Revenue Generated From All Workshop Events.
- Display Revenue Generated From All Exhibition Events.
- Show Details For The Event That Generated Highest Revenue.
- Show Details For The Event That Generated Lowest Revenue.
10. Exit.

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o Revenue Generated: 400000

Choose From The Following:
1. Display Revenue Generated From All Events.
2. Display Revenue Generated From A Particular Event.
3. Display Revenue Generated From All Workshop Events.
4. Display Revenue Generated From All Exhibition Events.
5. Show Details For The Event That Generated Highest Revenue.
6. Show Details For The Event That Generated Lowest Revenue.
7. Return to Menu.

Enter choice: 7

*****EVENT MANAGEMENT SYSTEM*****

MENU OPTIONS
=> Choose From The Following:
1. Display Information of All Events.
2. Display Information of A Particular Event.
3. Display Information of Popular Events.
4. Display Information of Cheapest Event.
5. Display Information of Largest Event.
6. Display Events Occurring On Same Date.
7. Update Information of An Event.
8. Write Information To File 'Output.txt'.
9. Display Revenue Generated.
- Display Revenue Generated From All Events.
- Display Revenue Generated From A Particular Event.
- Display Revenue Generated From All Workshop Events.
- Display Revenue Generated From All Exhibition Events.
- Show Details For The Event That Generated Highest Revenue.
- Show Details For The Event That Generated Lowest Revenue.
10. Exit.

Enter choice: 10

..Program finished with exit code 0
Press ENTER to exit console.

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main.cpp  Event.h  Event.cpp  Workshop.h  Workshop.cpp  Exhibition.h  Exhibition.cpp  Venue.h  Venue.cpp  Event.txt  Output.txt
1 EXHIBITION:The Great Exhibition:2/5/2024:Museum of Contemporary Art,Lahore:400:1000:Jeff Koons and Andy Warhol:4
2 WORKSHOP:Potters:2/5/2024:Pak China:700:800:Bushra:9
3 EXHIBITION:The Art Of Chaos:8/1/2024:Museum of Contemporary Arts,Lahore:3000:500:Jeff Koons and Andy Warhol:3.8
4 WORKSHOP:Photography Workshop:8/1/2024:Ataturk Avenue,Islamabad:1500:1000:Tariq Hussain and Wahaj Muneer:11
5 EXHIBITION:The Sound of Silence:12/6/2024:Lahore International Expo Centre, Lahore:1300:700:Martin Lewis:3.2
6 WORKSHOP:Entrepreneurship Workshop:18/1/2024:Serena Hotel, Islamabad:2000:1200:Tariq Amjad and Tom Holland:6
7 EXHIBITION:The Power of Words:19/6/2024:Karachi Expo Centre, Karachi:1000:700:Martin Lewis:3
8 WORKSHOP:Cooking Workshop:13/11/2024:Movenpick Hotel, Karachi:1500:900: Allen Shrewds:10
9 EXHIBITION:The Light Within:17/5/2024:Faletti's Hotel, Lahore:1000:1600:Martin Lewis:3.3
10 WORKSHOP:Creative Writing Workshop:23/9/2024:The Nishat Hotel, Lahore:2000:9700:Micheal Jordon:4
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