

EXPERIMENT 2

- ① Write a program to declare a class 'City' having data members as name & population. Accept this data for 5 cities and display the name of the city having highest population.
- ② Write a program to declare a class 'Account' having data member as Acc-no., and balance. Accept this data for 10 accounts and give interest of 10% where balance is equal or greater than 5000 and display names of staff who are "HOD" them.
- ③ Write a program to declare a class 'Staff' having data members as name and post. Accept this data for 5 staff and display names of staff who are "HOD".

```
① #include <iostream>
using namespace std;
class City
{
    int population;
    string name;
public:
    void accept()
    {
        cout << "Enter city name and population:";
        cin >> name >> population;
    }
}
```


Enter city name & population: Mumbai
20411000

Enter city name & population: Delhi
19814000

Enter city name & population: Bengaluru
12360000

Enter city name & population: Hyderabad
10400000

Enter city name & population: Pune
10000000

City with highest population
Name: Mumbai, Population: 20411000

```
③ #include <iostream>
using namespace std;
```

```
{
    string name;
```

```
    string past;
```

```
    public:
```

```
    void accept()
```

```
{
```

```
    cout << "Enter name & past : " ;
```

```
    cin >> name >> past;
```

```
}
```

```
    void display()
```

```
{
```

```
    if (past == "HOD")
```

```
{
```

```
        cout << "HOD" << name << endl;
```

```
}
```



```
void display ()
{
    cout << " Name:" << name << ", Population:" <<
        population << endl;
}

int getpopulation ()
{
    return population;
}

int main ()
{
    City c[5];
    for (int i=0; i<5; i++)
    {
        c[i].accept ();
    }

    int maxpopulation = 0;
    for (int i=1; i<5; i++)
    {
        if (c[i].getpopulation () > c[maxpopulation].
            getpopulation ())
        {
            maxpopulation = i;
        }
    }

    cout << "\n City with highest population: \n";
    c[maxpopulation].display ();
    return 0;
}

Output :
```



```
② #include <iostream>
using namespace std;
class Account
{
    int account-no.;
    float balance;
public:
    void accept()
    {
        cout << "Enter account number and balance : ";
        cin >> account-no. >> balance;
    }

    void applyInterest
    {
        if (balance >= 500)
        {
            balance + = balance * 0.10;
        }
    }

    void display()
    {
        cout << "Account no. = " << account-no.;
        cout << "Balance = " << balance;
    }
};

int main() {
    Account acc[10];
    for (i=0; i<10; i++) {
        acc[i].accept();
        cout << "Applying 10% Interest ";
        for (i=0; i<10; i++) {
            acc[i].applyInterest();
            acc[i].display();
        }
    }
    return 0; }
```

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```
}  
};  
int main()  
{  
    staff s[5];  
    for (int i=0; i<5; i++)  
    {  
        cout << "\n Enter details for staff "<< i+1 << "\n";  
        s[i].accept();  
    }  
    cout << "\n list of HODs \n";  
    for (int i=0; i<5; i++)  
    {  
        s[i].display();  
    }  
    return 0;  
}
```

Output :

Enter details for staff

Enter name & post : Vaani

HOD

Enter name & post : Rian

HOD

Enter name & post : Anushka

Assistant

Enter name & post : Krish

Lecturer

Enter name & post : Rohan

clerk

list of HODs

HOD Vaani

HOD Rian