DAA ASSIGNMENT-1

Q1: Find the median of the matrix

```
 #include <iostream>
#include<bits/stdc++.h>
using namespace std;
int main() {
   int r,c,i,j,low,high;
   cin>>r>>c;
   int m[r][c];
   for(i=0;i<r;i++)
   {
      for(j=0;j<c;j++)
      cin>>m[i][j];
   }
   for (int i=0; i<r; i++)
   {
      if (m[i][0] < low)
         low=m[i][0];
      if (m[i][c-1]>high)
         high=m[i][c-1];
   }
   int t = (r * c + 1) / 2;
   while (low<high)
   {
      int mid = low+(high-low)/2;
      int temp=0;
      for (i=0;i<r;i++)
      {
       temp+=upper_bound(m[i], m[i]+c, mid) - m[i];
      }
```

```
    if (temp<t)
       low=mid+1;
    else
      high=mid;
  }
  cout<<"median="<<low;
  return 0;
}
```

OUTPUTS:

Q2:Minimum no of platform required

```
#include <iostream>
#include<bits/stdc++.h>
using namespace std;
int main() {
  int i,j,n,m;
  cout<<"Enter no of arrivals and deprtures"<<endl;
  cin>>n;
  int a[n],d[n];
  for(i=0;i<n;i++)
  {
    cin>>a[i];

  }
  for(i=0;i<n;i++)
  {
    cin>>d[i];
```

```
    }
    int c =sizeof(a)/sizeof(a[0]);
    int plat, r = 1;
    for (int i=0;i<c;i++)
    {
        plat=1;
        for (int j=0;j<c;j++)
        {
            if (i!=j)
            {
                if (a[i]>=a[j] && d[j]>=a[i])
                    plat++;
            }
        }
        if(r>plat)
        m=r;
        else
        m=plat;
    }
    cout<<"Min no of platforms required "<<m;
 return 0;
}
```

OUTPUT: