DESIGN AND ANALYSIS OF ALGORITHMS

LAB-6

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MONEY CHANGE:

CODE:

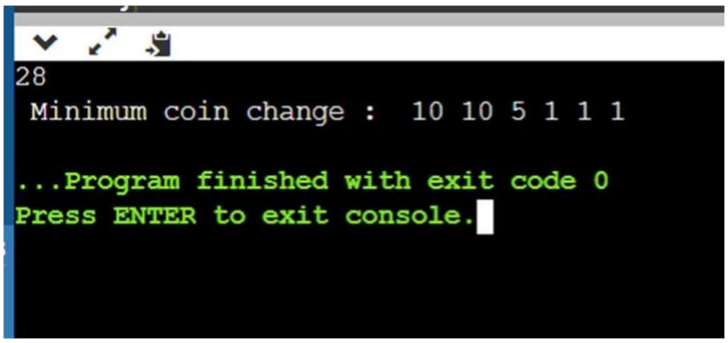
```
import java.util.*;


class Main
{
static int coins[] = {1,5,10};
static int n = coins.length;
static void findMin(int A)
{
Vector<Integer> mincoins = new Vector<>();
for (int i = n - 1; i >= 0; i--)
{
while (A >= coins[i])
{
A -= coins[i];
mincoins.add(coins[i]);
}
}
for (int i = 0; i < mincoins.size(); i++)
{
System.out.print(" " + mincoins.elementAt(i));
}
```

```
}
  public static void main(String[] args)
  {
  int n ;
  Scanner in=new Scanner(System.in);
  n=in.nextInt();
  System.out.print(" Minimum coin change : " );
  findMin(n);
  }
  }
```

Analysis:

Time complexity O(nlogn)

Output:



1. Maximum Advertisement Revenue:

```
n = int(input())
a = [int(i) for i in input().split()]
b = [int(i) for i in input().split()]
a.sort()
b.sort()
```

```
ans = sum([a[i]*b[i] for i in range(n)])
print(ans)
```

Analysis:

Time complexity O(nlogn)

Output: