DESIGN AND ANALYSIS OF ALGORITHMS LAB-6

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MONEY CHANGE:

CODE:

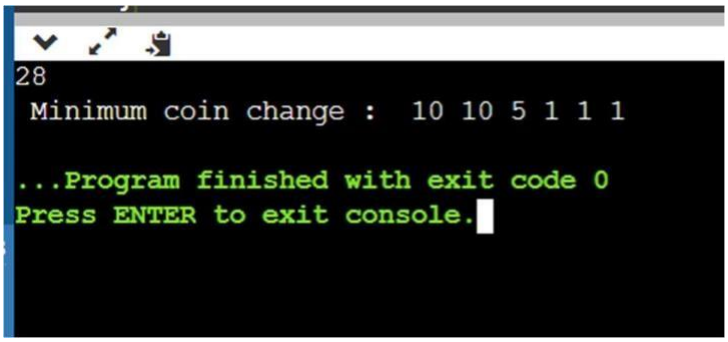
```
import java.util.*;


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:**

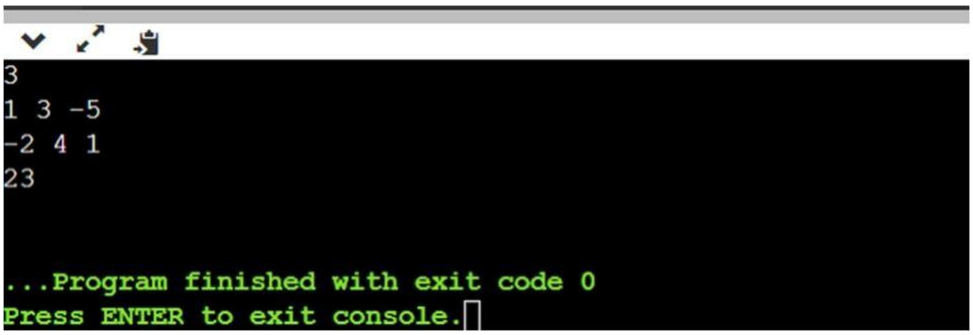


1. Maximum Advertisement Revenue:

```
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:**


3
1 3 -5
-2 4 1
23
...Program finished with exit code 0
Press ENTER to exit console.


1
23
39
897
...Program finished with exit code 0
Press ENTER to exit console.