DESIGN ANALYSIS AND ALGORITHM

LAB 6

GREEEDY ALGORITHM 3

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SLOT: L25+L26+L33+L34+L13+L14

REGISTRATION NO. : 19BCE7572

COURSE CODE: CSE3004

MAX REVENUE:

```
import java.util.*;

import java.lang.*;

public class MaxRev{

static int max_value(int array[][], int M, int K, int N)

{

    int[] time = new int[M];

    for(int i = 0; i < N; i++)

    {

        time[array[i][0]] = array[i][1];

    }

    int[][] dp = new int[M][2];

    dp[0][0] = 0;

    dp[0][1] = time[0];

    for(int i = 1; i < M; i++)

    {

        dp[i][0] = Math.max(dp[i - 1][0],

         dp[i - 1][1]);

        dp[i][1] = time[i];

        if (i - K >= 0)

        {

            dp[i][1] += Math.max(dp[i - K][0],

                                 dp[i - K][1]);

        }
```

```
    }
    return Math.max(dp[M - 1][0], dp[M - 1][1]);
}
public static void main(String[] args)
{
  int array[][] = { { 0, 10 },
                    { 4, 110 },
                    { 5, 30 } };
    int N = 3;
    int K = 4;
    int M = 6;
    System.out.println(max_value(array, M, K, N));  }
}
```

OUTPUT:

MONEY CHANGE:

```
import java.util.*;
public class MoneyChange
{
    static int deno[] = {1, 2, 5, 10, 20,
    50, 100, 500, 1000};
    static int n = deno.length;
    static void findMin(int V)
    {
        Vector<Integer> ans = new Vector<>();
        for (int i = n - 1; i >= 0; i--)
        {
            while (V >= deno[i])
            {
                V -= deno[i];
                ans.add(deno[i]);
            }
        }
        for (int i = 0; i < ans.size(); i++)
        {
            System.out.print(
                " " + ans.elementAt(i));
        }
```

```
    }
    public static void main(String[] args)
    {
        Scanner sc= new Scanner(System.in);
        int n = sc.nextInt();
        findMin(n);
    }
}
```

OUTPUT: