```java
import java.util.*;
abstract class Robber{
    void RobbingClass(){
        System.out.println("MScAI&ML");
    }
    Robber(){
        System.out.println("I love MachineLearning.");
    }
    abstract int RowHouses(int a[]);
    abstract int RoundHouses(int a[]);
    abstract int SquareHouse(int a[]);
    abstract int MultiHouse(int a[]);
}
class JAVAProfessionalRobber extends Robber{
    int RowHouses(int a[]){
        int max[]=new int[3];
        max[0]=a[0]+a[2];//adding 1st and 3rd
        max[1]=a[1]+a[3];//adding 2nd and 4th
        max[2]=a[0]+a[3];//adding 1st and 4th
        int maxi=0;
        for(int i=0;i<3;i++){
            if(maxi<max[i]){
                maxi=max[i];
            }
        }
        return maxi;
    }
    int RoundHouses(int a[]){
        int left=0,right=0;
        for(int i=0;i<a.length;i++){
            if(i%2==0){
                left+=a[i];//adding even places
            }
            else{
                right+=a[i];//adding odd places
            }
        }
        if(left>right){
            return left;
        }
        else{
            return right;
        }
    }
    int SquareHouse(int a[]){
        int left=0,right=0;
        for(int i=0;i<a.length;i++){
            if(i%2==0){
```

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                left+=a[i];//adding even places
            }
            else{
                right+=a[i];//adding odd places
            }
        }
        if(left>right){
            return left;
        }
        else{
            return right;
        }
    }
    int MultiHouse(int a[]){
        int max[]=new int[4];
        int maxi=0;
        max[0]=a[0]+a[3];//adding 1st and 4th
        max[1]=a[0]+a[2]+a[4];//adding odd places
        max[2]=a[1]+a[3]+a[5];//adding even places
        max[3]=a[2]+a[5];//adding 3rd and 6th
        for(int i=0;i<4;i++){
            if(maxi<max[i]){
                maxi=max[i];
            }
        }
        return maxi;
    }
}
class Lab4{
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        int a=0,max=0;
        JAVAProfessionalRobber obj=new JAVAProfessionalRobber();
        int array[]=new int[6];
        do
        {
            System.out.println("Choose a housing type:\n1.Row House\n2.Square
House\n3.Circle House\n4.Multi House");
            int b=sc.nextInt();
            if(b!=4){//first 3 cases need 4 houses
                for(int i=0;i<4;i++){
                    System.out.println("Enter amount in house "+(i+1));
                    array[i]=sc.nextInt();
                }
            }
            else{//last case needs 6 houses
                for(int i=0;i<6;i++){
                    System.out.println("Enter amount in house "+(i+1));
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                    array[i]=sc.nextInt();
                }
            }
            switch(b){
                case 1: max=obj.RowHouses(array);
                        break;
                case 2: max=obj.SquareHouse(array);
                        break;
                case 3: max=obj.RoundHouses(array);
                        break;
                case 4: max=obj.MultiHouse(array);
                        break;
                default: System.out.println("Invalid Choice!");
            }
            System.out.println("Profit="+max);
            System.out.println("Do you want to Rob again:\n1.Yes\n2.No");
            a=sc.nextInt();
        }while(a!=2);
        System.out.println("Good");
    }
}
```

PS C:\Users\anush\Desktop\Christ\Java\Labs\Lab 4> java Lab4

I love MachineLearning.

Choose a housing type:

1.Row House

2.Square House

3.Circle House

4.Multi House

1

Enter amount in house 1

5

Enter amount in house 2

2

Enter amount in house 3

78

Enter amount in house 4

5

Profit=83

Do you want to Rob again:

1.Yes

2.No

1

Choose a housing type:

1.Row House

2.Square House

3.Circle House

4.Multi House

5

Enter amount in house 1

4

Enter amount in house 2

8

Enter amount in house 3

6

Enter amount in house 4

24

Invalid Choice!

Profit=83

Do you want to Rob again:

1.Yes

2.No