Object Oriented Analysis And Design
UE19CS353
6th Semester, Academic Year 2021-22

Week #: 1 - Java Programming

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Code:

```java
class Main
{
    public static void main(String[] args)
    {
        String val, suit;
        Pile P = new Pile();
        int choice;
        Scanner sc1 = new Scanner(System.in);
        Scanner sc2 = new Scanner(System.in);
        Scanner sc3 = new Scanner(System.in);
        boolean end = false;
        while(!end)
        {
            System.out.println("1. Place a card");
            System.out.println("2. Draw a card");
            System.out.println("3. Peek");
            System.out.println("4. Exit");
            choice = sc1.nextInt();
            System.out.println();
            switch(choice)
            {
                case 1:
                    System.out.println("Enter the Card Suit:");
                    suit = sc2.nextLine();
                    System.out.println();
                    System.out.println("Enter the Card Value:");
                    val = sc3.nextLine();
                    System.out.println();
                    Card c = new Card(suit, val);
                    P.push(c);
                    break;
                case 2:
                    P.pop();
                    break;
                case 3:
                    P.peek();
                    break;
                case 4:
                    end = true;
                    break;
                default:
                    System.out.println("Try Again!");
            }
        }
        sc1.close(); sc2.close(); sc3.close();
    }
}
```

```java
import java.util.Scanner;
class Card
{
    String cardSuit, cardValue;
    Card(String suit, String val)
    {
        cardSuit = suit;
        cardValue = val;
    }
}
```

```java
class Pile
{
    Card cards[] = new Card[10];
    int n;
    Pile()
    {
        n = 0;
    }

    public void push(Card c)
    {
        if(n < 10)
        {
            cards[n] = new Card(c.cardSuit, c.cardValue);
            n++;

        }
        else
        {
            System.out.println("Full Deck!");
        }
    }

    public void peak()
    {
        if(n-1 >=0)
        {
            System.out.println(cards[n-1].cardValue + " of " + cards[n-1].cardSuit + "\n");
        }
        else
            System.out.println("Empty Deck!\n");
    }

    public void pop()
    {
        if(n >= 1)
        {
            System.out.println("You Drew: "+cards[n-1].cardValue + " of " + cards[n-1].cardSuit + "\n");
            n--;
        }
        else
            System.out.println("Empty deck!\n");
    }
}
```

Screenshots:

```
sumukhbhat2701@SRBs-PC$ javac Main.java
sumukhbhat2701@SRBs-PC$ java Main
1. Place a card
2. Draw a card
3. Peek
4. Exit
1

Enter the Card Suit:
Heart

Enter the Card Value:
10

1. Place a card
2. Draw a card
3. Peek
4. Exit
1

Enter the Card Suit:
Club

Enter the Card Value:
A

1. Place a card
2. Draw a card
3. Peek
4. Exit
3

A of Club
```

```
1. Place a card
2. Draw a card
3. Peek
4. Exit
1

Enter the Card Suit:
4

Enter the Card Value:
Diamond

1. Place a card
2. Draw a card
3. Peek
4. Exit
3

Diamond of 4

1. Place a card
2. Draw a card
3. Peek
4. Exit
2

You Drew: Diamond of 4

1. Place a card
2. Draw a card
3. Peek
4. Exit
3

A of Club

1. Place a card
2. Draw a card
3. Peek
4. Exit
2

You Drew: A of Club

1. Place a card
2. Draw a card
3. Peek
4. Exit
2

You Drew: 10 of Heart
```

```
1. Place a card
2. Draw a card
3. Peek
4. Exit
2

Empty deck!

1. Place a card
2. Draw a card
3. Peek
4. Exit
4
```