


JAVA WEEK-1

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SECTION: A

CODE SS: -

 Main - Notepad

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```
import java.util.Scanner;
class Card {
    String suit; char value;
    public Card(String suit,char value){ this.suit = suit;
    this.value = value;
    }
    public String display(){
    return this.suit+" "+this.value;
    }
    }
    class Pile{
    private Card arr[]; private int top; private int capacity; Pile() {
    this.arr = new Card[10]; this.capacity = 10;
    this.top = -1;
    }

    public void place(Card c){ if(isFull()){
    System.out.println("Stack FULL");
    }
    arr[++top] = c;

    }

    public Card draw(){ if(isEmpty()){
    System.out.println("STACK EMPTY");
    }
    }
```

```
public Card draw(){ if(isEmpty()){  
    System.out.println("STACK EMPTY");  
}  
    return arr[top--];  
}
```

```
public int getSize(){ return top +1;  
}
```

```
public Boolean isEmpty(){ if(top==-1){  
    return true;  
}  
    else{  
        return false;  
    }  
}
```

```
public Boolean isFull(){ if(top==capacity-1){  
    return true;  
}  
    else{  
        return false;  
    }  
}
```

```
public void peek(){ System.out.println("Top of Pile: "); System.out.println(arr[top].display());
}
}

public class Main {
static Scanner sc = new Scanner(System.in); public static void main(String[] args){
Pile stack = new Pile(); while(true){
System.out.println("1)Place"); System.out.println("2)Draw"); System.out.println("3)Peek"); System.out.println("Enter your choice:");
int ch=Main.sc.nextInt();

switch(ch) {
case 1: Card c1 = new Card("Club", '3'); Card c2 = new Card("Diamond", 'A'); Card c3 = new Card("Spade", 'K');

stack.place(c1); stack.place(c2);
stack.place(c3); stack.peek(); break;

case 2:
Card d = stack.draw(); System.out.println("Card Drawn:"+d.display()); break;
case 3:
System.out.println("\nAfter Drawing"); stack.peek();
break; default: System.out.println("Invalid option");
break;
}
}
}}
```

OUTPUT SS: -

```
C:\Users\Adhi\OneDrive\Documents\1styeart\sem6\java lab\week1>java Main
1)Place
2)Draw
3)Peek
Enter your choice:
1
Top of Pile:
Spade K
1)Place
2)Draw
3)Peek
Enter your choice:
2
Card Drawn:Spade K
1)Place
2)Draw
3)Peek
Enter your choice:
3

After Drawing
Top of Pile:
Diamond A
1)Place
2)Draw
3)Peek
Enter your choice:
3

After Drawing
Top of Pile:
Diamond A
1)Place
2)Draw
3)Peek
Enter your choice:
3

After Drawing
Top of Pile:
Diamond A
1)Place
2)Draw
3)Peek
Enter your choice:
3

After Drawing
Top of Pile:
Diamond A
1)Place
2)Draw
3)Peek
```

Enter your choice:

1

Top of Pile:

Spade K

1)Place

2)Draw

3)Peek

Enter your choice:

2

Card Drawn:Spade K

1)Place

2)Draw

3)Peek

Enter your choice:

3

After Drawing

Top of Pile:

Diamond A

1)Place

2)Draw

3)Peek

Enter your choice:

2

Card Drawn:Diamond A

1)Place

2)Draw

3)Peek

Enter your choice:

3

After Drawing

Top of Pile:

Club 3

1)Place

2)Draw

3)Peek

Enter your choice: