



```
import java.util.Scanner;
interface IntQueue {
void enque();
void deque();
}
class FixedQueue implements IntQueue {
int queue[];
int front;
int rear;
FixedQueue(int size) {
queue = new int[size];
rear = -1;
front=0;
}
public void enque() {
        int item;
        Scanner sc=new Scanner(System.in);
if(rear==queue.length-1)
System.out.println("Queue is full");
else{
        System.out.println("Enter the item to be inserted");
        item=sc.nextInt();
queue[++rear] = item;
}}
public void deque() {
if(rear < 0) {
System.out.println("Queue is empty");
```

```
}
else{
        System.out.println("Item dequed is "+queue[front]);
        front++;
        if(front>rear)
        {
                front=0;
                rear=-1;
        }
}
}
}
class MainQueue
{
        public static void main(String args[])
        {
                int i,s;
                Scanner sc=new Scanner(System.in);
               System.out.println("Enter the size of the queue");
                s=sc.nextInt();
                FixedQueue ob=new FixedQueue(s);
                do
                {
                        System.out.println("Press 1 to enque and 2 to deque and 3 to exit");
                        i=sc.nextInt();
                        if(i==1)
                       {
                                ob.enque();
                       }
                        else if(i==2)
                       {
```

```
ob.deque();
}
else if(i==3)
break;
else
System.out.println("Wrong choice");
}while(true);
}
```

```
C:\Users\Adithi\Desktop\java_prgs>java MainQueue
Enter the size of the queue
Press 1 to enque and 2 to deque and 3 to exit
Enter the item to be inserted
Press 1 to enque and 2 to deque and 3 to exit
Enter the item to be inserted
Press 1 to enque and 2 to deque and 3 to exit
Enter the item to be inserted
Press 1 to enque and 2 to deque and 3 to exit
Queue is full
Press 1 to enque and 2 to deque and 3 to exit
Item dequed is 1
Press 1 to enque and 2 to deque and 3 to exit
Item dequed is 2
Press 1 to enque and 2 to deque and 3 to exit
Item dequed is 3
Press 1 to enque and 2 to deque and 3 to exit
Queue is empty
Press 1 to enque and 2 to deque and 3 to exit
C:\Users\Adithi\Desktop\java_prgs>
```

import java util·leanner; cheer phytiception extends Exception E private int ni My Exception (int a) E n=a; 3 public Itaing toltaing E return (n:1+" is greater than 15"); class fact Static void Compute Factorial (int a) throws My Exception 9 / i) car(5) throw new My Exception; for lint i=1; i(= a; 1+1) & telki, 3 Syctem out printle (" The factorial of the given number is " + 1); dels lackrain ( public static void main( string args (2) Jeanne 10: new Scanner System in) Eysten out println(" Enter the number"); a: screetlides; batt. Computeractorial (a); (atch (Myteception e) S. System put println ("Exception !" +e);

```
import java.util.Scanner;
class MyException extends Exception
{
        private int n;
       MyException(int a)
        {
                n=a;
        }
        public String toString()
        {
                return (n+" is greater than 15");
        }
}
class fact
{
        static void ComputeFactorial(int a) throws MyException
        {
                if(a>15)
                        throw new MyException(a);
                int f=1;
                for(int i=1;i<=a;i++)
                {
                        f=f*i;
                }
                System.out.println("The factorial of the given number is "+f);
       }
}
class factMain
{
        public static void main(String args[])
        {
```

```
Scanner sc=new Scanner(System.in);
int a;
System.out.println("Enter the number");
a=sc.nextInt();
try
{
    fact.ComputeFactorial(a);
}
catch(MyException e)
{
    System.out.println("Exception! "+e);
}
}
```

```
C:\Users\Adithi\Desktop\java_prgs>javac week10_extra2.java
C:\Users\Adithi\Desktop\java_prgs>java factMain
Enter the number
30
Exception! 30 is greater than 15
C:\Users\Adithi\Desktop\java_prgs>java factMain
Enter the number
14
The factorial of the given number is 1278945280
C:\Users\Adithi\Desktop\java_prgs>
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_ 3	import java ntil Scanner	
	class gleont	
	E double bal, w;	
	int i'd;	
	Scanner Acenew Scanner ( Systemin);	
	account()	
	E System out println Co Enter the IP and	
	current balance amount!	
	id=1c nextInt();	
	bal= &c-nextDouble();	
	3	
	void withdraws & double a) theories Mytaception	
	w-a;	
	if (w) bal	
	Hissor new MyException (us);	
11	else	
100	, bal = bal-w;	
	verid balance()	
	8 System out paintly ("Your warnt balance is:"	6
	class Myticoption extende Exception	
	& private double 1:	
	My Exception (Louble 119)	
	EV 1= w; 3	
	public Staing to Staing()	
	E' return ("Your withdrawal amount + 1 + "	
	exceeds your balance")	
	3 3	
2014	class accmain	
	& public static void main (String args[])	
	E double w,	
	Planner scenew Planner (Pystem in);	
	account a new account()	
	The state of the s	

```
Siglem out paintln ("Enter withdrawal amound");

W. scnextDouble();

lay { a. withdraw(so); }

catch (My Exception e)

2 System out paintln ("Transaction cancelled!"

tey. 3

a. balance();

3}
```

```
import java.util.Scanner;
class account
{
       double bal,w;
       int id;
       Scanner sc=new Scanner(System.in);
       account()
       {
               System.out.println("Enter the ID and the current balance amount");
               id=sc.nextInt();
               bal=sc.nextDouble();
       }
       void withdraw(double a) throws MyException
       {
               w=a;
               if(w>bal)
```

```
throw new MyException(w);
               else
                       bal=bal-w;
       }
       void balance()
       {
               System.out.println("Your current balance is: "+bal);
       }
}
class MyException extends Exception
{
        private double f;
        MyException(double w)
       {
               f=w;
       }
       public String toString()
       {
               return ("Your withdrawal amount "+f+" exceeds your balance");
       }
}
class accMain
{
        public static void main(String args[])
       {
               double w;
               Scanner sc=new Scanner(System.in);
               account a=new account();
               System.out.println("Enter the withdrawal amount");
```

```
C:\Users\Adithi\Desktop\java_prgs>javac week10_extra3.java
C:\Users\Adithi\Desktop\java_prgs>java accMain
Enter the ID and the current balance amount
1234
1000
Enter the withdrawal amount
2000
Transaction cancelled! Your withdrawal amount 2000.0 exceeds your balance
Your current balance is: 1000.0
C:\Users\Adithi\Desktop\java_prgs>java accMain
Enter the ID and the current balance amount
12345
1000
Enter the withdrawal amount
Your current balance is: 500.0
C:\Users\Adithi\Desktop\java_prgs>
```