

***Ds lab Assignment:***

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\*/

package queueusinglinklist;

/\*\*

\*

\* @author Memoona

\*/

public class Qnode {

int data;

Qnode next;

public Qnode(int data){

this.data=0;

next=null;

}

public Qnode(int d,Qnode n){

data=d;

next=n;

}

public void setData(int d){

data=d;

}

public void setNext(Qnode n){

next=n;

}

public int getData(){

return data;

}

public Qnode getNext(){

return next;

}

}

/\*

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package queueusinglinklist;

/\*\*

\*

\* @author Memoona

\*/

public class Qlinklist {

Qnode front;

Qnode rear;

public Qlinklist(){

this.front=null;

this.rear=null;}

public int dequeue()

{

if (front == null) {

System.out.print(" Underflow");

}

Qnode temp = front;

System.out.printf("removing"+ temp.data);

front = front.next;

if (front == null) {

rear = null;

}

int item = temp.data;

return item;

}

public void enqueue(int item)

{

Qnode node = new Qnode(item);

System.out.printf("Inserting this value"+ item);

if (front == null) {

front = node;

rear = node;

}

else {

rear.next = node;

rear = node;

}

}

public void peek() {

if (front != null) {

System.out.println (front.data);

} else {

System.out.println ("no data found");

}

}

}

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\*/

package queueusinglinklist;

import java.util.Scanner;

/\*\*

\*

\* @author Memoona

\*/

public class Main {

/\*\*

\* @param args the command line arguments

\*/

public static void main(String[] args) {

boolean flag=true;

while(true){

Qlinklist q=new Qlinklist();

Scanner scan=new Scanner(System.in);

System.out.println("1.enqueue");

System.out.println("2.dequeue");

System.out.println("3.peek");

System.out.println("4. exit");

System.out.println("enter choice");

int choice=scan.nextInt();

switch(choice){

case 1:

System.out.println("enter value");

int valu=scan.nextInt();

q.enqueue(valu);

break;

case 2:

q.dequeue();

break;

case 3:

q.peek();

break;

case 4:

flag=false;

break;

default:

System.out.println("invalid choice");

}

}

}

}