Program7: Traverse a doubly linked list in the forward and backward directions

```
package mounika7;
      public class DLL
             Node head;
      class Node
                          int data;
                          Node prev;
                          Node next;
      Node(int d)
      data = d;
      public void push(int new_data)
      Node new_Node = new Node(new_data);
      new Node.next = head;
                          new_Node.prev = null;
      if (head != null)
                                 head.prev = new_Node;
      head = new_Node;
      public void InsertAfter(Node prev_Node, int new_data)
      if (prev_Node == null)
      {
                                 System.out.println("The given previous node cannot
be NULL ");
                                 return;
      Node new node = new Node(new data);
      new_node.next = prev_Node.next;
      prev_Node.next = new_node;
      new_node.prev = prev_Node;
      if (new node.next != null)
                                 new_node.next.prev = new_node;
             void append(int new_data)
      Node new node = new Node(new data);
                    Node last = head;
      new_node.next = null;
      if (head == null)
      {
                                 new node.prev = null;
                                 head = new_node;
                                 return;
      while (last.next != null)
```

```
last = last.next;
last.next = new node;
new node.prev = last;
public void printlist(Node node)
                    Node last = null;
                    System.out.println("Traversal in forward Direction");
                    while (node != null)
{
                          System.out.print(node.data + " ");
                          last = node;
                          node = node.next;
                    }
                    System.out.println();
                    System.out.println("Traversal in reverse direction");
                    while (last != null)
{
                          System.out.print(last.data + " ");
                          last = last.prev;
                    }
public static void main(String[] args)
DLL dll = new DLL
dll.append(6);
dll.push(7);
dll.push(1);
dll.append(4);
dll.InsertAfter(dll.head.next, 8);
             System.out.println("Created DLL is: ");
                    dll.printlist(dll.head);
      }
}
```

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public class DLL
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      > D LinkedList.java
                                                          Node head;
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   JRE System Library [JavaSE-1.8]
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   v 🌐 mounika7
                                                          Node(int d)
     > DLL.java
                                                          {
data = d;
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 > M JRE System Library [JavaSE-1.8]
                                                         public void push(int new_data)
   ∨ 曲 mounika2
                                                         Node new_Node = new Node(new_data);

new_Node.next = head;

new_Node.prev = null;

if (head != null)
     > 1 Main.java
linkedlist
> M JRE System Library [JavaSE-1.8]
                                                                               head.prev = new Node:
                                                         head = new_Node;
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     > D LinkedList.java
                                                         public void InsertAfter(Node prev_Node, int new_data)
multiplematrices
> M JRE System Library [JavaSE-1.8]
                                                                              System.out.println("The given previous node cannot be NULL ");
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     > MultiplyMatrices.java
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