Question 6

Write a program to create a vector to store the shopping list of items.

```
import java.io.*;
import java.util.*;
class Shop
{
  public static void main(String args[])
  {
    try
    {
      Vector list=new Vector();
      String str;
      int i,n,pos,ch=0;
      DataInputStream b=new DataInputStream(System.in);
      do
      {
        System.out.println("Menu");
        System.out.println("1.Create\n2.Add\n3.Delete\n4.Display\n5.Exit");
        System.out.println("Enter Your Choice: ");
        ch=Integer.parseInt(b.readLine());
        switch(ch)
        {
          case 1:
          {
            System.out.println("Enter the item to be added to the list");
            str=b.readLine();
            list.addElement(str);
            System.out.println("Creating a List...");
            break;
          }
          case 2:
          {
            System.out.println("Enter an Item");
            str=b.readLine();
            System.out.println("Enter Position ");
            pos=Integer.parseInt(b.readLine());
            list.insertElementAt(str,pos-1);
            break;
          }
          case 3:
          {
            n=list.size();
            if(n==0)
            System.out.println("List is Empty");
            else
            {
              System.out.println("Enter the item to be Deleted: ");
```

```
              str=b.readLine();
              list.removeElement(str);
            }
            break;
          }
          case 4:
          {
            int l=list.size();
            String s[]=new String[l];
            if(l==0)
            System.out.println("List is Empty");
            else
            {
              for(i=0;i<l;i++)
              list.copyInto(s);
              System.out.println("The items in the list are");
              for(i=0;i<l;i++)
              System.out.println(s[i]);
            }
            break;
          }
          case 5:
            System.exit(0);
          default :
          {
            System.out.println("Invalid Choice");
          }
        }
      } while(ch<5);
    }catch(Exception e) {}
  }
}
```

OR

```
import java.util.*;

public class MyShop {
    public static void main(String args[]) {
        try {
            Vector list = new Vector();
            String str;
            int i, n, ch;

            Scanner b = new Scanner(System.in);

            do {
                System.out.print("Menu\n1. Add\n2. Delete\n3. Display\n4. Exit\nEnter your choice: ");
                ch = b.nextInt();

                switch (ch) {
                    case 1: System.out.print("Enter the item: ");
```

```
                            str = b.next();
                            list.addElement(str);
                            System.out.println("Item added successfully\n");
                            break;

                    case 2: if (list.isEmpty())
                            System.out.println("List is empty\n");
                            else {
                                System.out.print("Enter the item to be deleted: ");
                                str = b.next();

                                if (list.removeElement(str))
                                System.out.println("Item removed successfully");
                                else
                                System.out.println("Item does not exist in the list");
                            }
                            break;

                    case 3: if (list.isEmpty())
                            System.out.println("List is empty\n");
                            else {
                                n = list.size();
                                String[] arr = new String[n];
                                list.copyInto(arr);

                                System.out.println("\nThe items in the list are:");
                                for (i = 0; i < n; i++) {
                                    System.out.println((i + 1) + ". " + arr[i]);
                                }
                                System.out.println();
                            }
                            break;

                    case 4: System.exit(0);

                    default: System.out.println("Invalid choice. Try again");
                }
            } while (true);
        } catch (Exception e) {}
    }
}
```

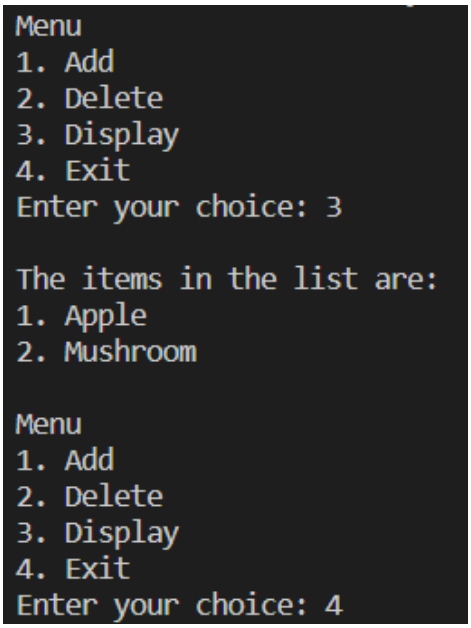
Output:

```
Menu
1. Add
2. Delete
3. Display
4. Exit
Enter your choice: 1
Enter the item: apple
Item added successfully

Menu
1. Add
2. Delete
3. Display
4. Exit
Enter your choice: 1
Enter the item: Banana
Item added successfully

Menu
1. Add
2. Delete
3. Display
4. Exit
Enter your choice: 1
Enter the item: Mushroom
Item added successfully

Menu
1. Add
2. Delete
3. Display
4. Exit
Enter your choice: 2
Enter the item to be deleted: Banana
Item removed successfully
```



{*The above output is of the second code, the first code will have a slightly different output*}