VBA Codes

1. LoadFromDatabase

```vba
Sub LoadFromDatabase()
    Dim conn As Object
    Dim rs As Object
    Dim ws As Worksheet
    Dim dbData As String
    Dim strSQL As String
    Dim i As Integer

    ' set worksheet
    Set ws = ThisWorkbook.Sheets("OnlineClothShop")

    ' clear content
    ws.Range("A4:M105").ClearContents

    ' link database
    dbData = ThisWorkbook.Path & "\Project2.accdb"

    ' Establish database connection
    Set conn = CreateObject("ADODB.Connection")
    conn.Open "Provider=Microsoft.ACE.OLEDB.12.0;Data Source=" & dbData & ";"

    ' SQL query
    strSQL = "SELECT OrderID, CustomerID, CustomerName, Gender, ProductID, Products, SalePrice, UnitCost, OrderDate, Quantity, Profit, City, OrderStatus FROM Data"

    ' Execute the SQL command
    Set rs = conn.Execute(strSQL)

    ' open Excel
    i = 4
    Do Until rs.EOF
        ws.Cells(i, 1).Value = rs.Fields("OrderID").Value
        ws.Cells(i, 2).Value = rs.Fields("CustomerID").Value
        ws.Cells(i, 3).Value = rs.Fields("CustomerName").Value
        ws.Cells(i, 4).Value = rs.Fields("Gender").Value
        ws.Cells(i, 5).Value = rs.Fields("ProductID").Value
        ws.Cells(i, 6).Value = rs.Fields("Products").Value
        ws.Cells(i, 7).Value = rs.Fields("SalePrice").Value
        ws.Cells(i, 8).Value = rs.Fields("UnitCost").Value
        ws.Cells(i, 9).Value = rs.Fields("OrderDate").Value
        ws.Cells(i, 10).Value = rs.Fields("Quantity").Value
        ws.Cells(i, 11).Value = rs.Fields("Profit").Value
        ws.Cells(i, 12).Value = rs.Fields("City").Value
```

```vba
        ws.Cells(i, 13).Value = rs.Fields("OrderStatus").Value
        rs.MoveNext
        i = i + 1
    Loop

    'close connection
    rs.Close
    conn.Close
    Set rs = Nothing
    Set conn = Nothing

    MsgBox "Data loaded successfully!"
End Sub
```

2. ColorOrderStatus

```vba
Sub ColorOrderStatus()
    Dim ws As Worksheet
    Dim lastRow As Long
    Dim statusRange As Range
    Dim cell As Range

    ' Define Data Range
    Set ws = ThisWorkbook.Sheets("OnlineClothShop")
    lastRow = ws.Cells(ws.Rows.Count, "M").End(xlUp).Row
    Set statusRange = ws.Range("M4:M" & lastRow) 'Data start from M4

    ' Color OrderStatus
    For Each cell In statusRange
        If cell.Value = "Pending" Then
            cell.Interior.Color = RGB(255, 255, 0) ' Yellow
        ElseIf cell.Value = "Shipped" Then
            cell.Interior.Color = RGB(0, 176, 240) ' Blue
        ElseIf cell.Value = "Delivered" Then
            cell.Interior.Color = RGB(146, 208, 80) ' Green
        Else
            cell.Interior.Color = xlNone ' No color
        End If
    Next cell

    MsgBox "OrderStatus coloring completed!", vbInformation
End Sub
```

3. SaveDataToDatabase

```vba
Sub SaveDataToDatabase()
    Dim conn As Object
```

```vba
    Dim cmd As Object
    Dim dbData As String
    Dim sql As String
    Dim ws As Worksheet
    Dim CustomerID As String, OrderID As String
    Dim CustomerName As String, Gender As String
    Dim ProductID As String, Products As String
    Dim SalePrice As Double, UnitPrice As Double
    Dim OrderDate As String, Quantity As Integer
    Dim Profit As Double, City As String, OrderStatus As String

    ' define worksheet
    Set ws = ThisWorkbook.Sheets("OnlineClothShop")
    dbData = ThisWorkbook.Path & "\Project2.accdb"

    ' insert info
    OrderID = ws.Range("OrderID").Value
    CustomerID = ws.Range("CustomerID").Value
    CustomerName = ws.Range("CustomerName").Value
    Gender = ws.Range("Gender").Value
    ProductID = ws.Range("ProductID").Value
    Products = ws.Range("Products").Value
    SalePrice = ws.Range("SalePrice").Value
    UnitCost = ws.Range("UnitCost").Value
    OrderDate = ws.Range("OrderDate").Value
    Quantity = ws.Range("Quantity").Value
    Profit = ws.Range("Profit").Value
    City = ws.Range("City").Value
    OrderStatus = ws.Range("OrderStatus").Value

     ' Link Access
    Set conn = CreateObject("ADODB.Connection")
    conn.Open "Provider=Microsoft.ACE.OLEDB.12.0;Data Source=" & dbData

    ' link SQL query
    sql = "INSERT INTO Data (OrderID, CustomerID, CustomerName, Gender, ProductID,
Products, SalePrice, UnitCost, OrderDate, Quantity, Profit, City, OrderStatus) " & _
        "VALUES ('" & OrderID & "', '" & CustomerID & "', '" & CustomerName & "', '" & Gender
& "', '" & ProductID & "', '" & Products & "', " & SalePrice & ", " & UnitCost & ", #" &
OrderDate & "#, " & Quantity & ", " & Profit & ", '" & City & "', '" & OrderStatus & "')"


    Set cmd = CreateObject("ADODB.Command")
    With cmd
      .ActiveConnection = conn
      .CommandText = sql
      .Execute
```

```
    End With

    ' success information
    MsgBox "Data have been imported successfully!", vbInformation, "Import successfully!"
End Sub
```

4. GetCustomerDetailsAndOutstandingOrders

```
Sub GetCustomerDetailsAndOutstandingOrders()
    Dim conn As Object, rs As Object
    Dim ws As Worksheet
    Dim strSQL As String, CustomerName As String
    Dim dbData As String

    ' Worksheet setup
    Set ws = ThisWorkbook.Sheets("CustomerDetails")
    ws.Range("A1:F10").ClearContents

    ' Database path and customer name input
    dbData = ThisWorkbook.Path & "\Project2.accdb"
    CustomerName = InputBox("Enter the customer's name:", "Customer Lookup")
    If CustomerName = "" Then Exit Sub

    ' SQL query
    strSQL = "SELECT Customers.CustomerName, Customers.Gender, Orders.OrderID,
OrdersProducts.SalePrice, " & _
        "Orders.OrderDate, Orders.OrderStatus " & _
        "FROM (Customers " & _
        "INNER JOIN Orders ON Customers.CustomerID = Orders.CustomerID) " & _
        "INNER JOIN OrdersProducts ON OrdersProducts.OrderID = Orders.OrderID " & _
        "WHERE Customers.CustomerName = '" & Replace(CustomerName, "'", "''") & "' " &
_
        "AND OrdersProducts.SalePrice > 100"

    ' Connect to database and execute query
    Set conn = CreateObject("ADODB.Connection")
    conn.Open "Provider=Microsoft.ACE.OLEDB.12.0;Data Source=" & dbData & ";"
    Set rs = conn.Execute(strSQL)

    ' Output headers and data
    For i = 0 To rs.Fields.Count - 1
        ws.Cells(1, i + 1).Value = rs.Fields(i).Name
    Next i
    ws.Range("A2").CopyFromRecordset rs

End Sub
```