Source Code

TestProgram.java – java class

```
package main;


public class TestProgram extends javafx.application.Application {
   /*
      Attributes (for Window Control)
   */
   private javafx.scene.control.Button backButton;
   private javafx.scene.control.Button task1Button;
   private javafx.scene.control.Button task2Button;
   private javafx.scene.control.Button task3Button;
   private javafx.scene.control.Button task4Button;
   /*
      Attributes (for Program Works)
   */
   private javafx.scene.control.ComboBox<String> cboTableName;     // for database
   private javafx.scene.control.Button btShowContents;
   private javafx.scene.control.TextArea taContents;
   private javafx.scene.control.TextArea taResult;              // for tasks
   private javafx.scene.control.Label caution;
   private javafx.scene.control.TextField tfOrderID1;
   private javafx.scene.control.Button btShow1;
   private javafx.scene.control.TextField tfOrderID2;
   private javafx.scene.control.Button btShow2;
   private javafx.scene.control.TextField tfState3;
   private javafx.scene.control.Button btShow3;
   private javafx.scene.control.TextField tfYear4;
   private javafx.scene.control.Button btShow4;
   private java.sql.Statement stmt;
```

```
/*
   Constructor (Initialization)
*/
public TestProgram() {
   backButton = new javafx.scene.control.Button("Back");
   backButton.setAlignment(javafx.geometry.Pos.CENTER_RIGHT);
   task1Button = new javafx.scene.control.Button("#1 - ******* Order Total *******");
   task2Button = new javafx.scene.control.Button("#2 - ****** Order Details ******");
   task3Button = new javafx.scene.control.Button("#3 - ** Customers Information **");
   task4Button = new javafx.scene.control.Button("#4 - *** Employees Birthday ****");
   task1Button.setMinSize(200, 50);
   task2Button.setMinSize(200, 50);
   task3Button.setMinSize(200, 50);
   task4Button.setMinSize(200, 50);
   cboTableName = new javafx.scene.control.ComboBox<>();
   btShowContents = new javafx.scene.control.Button("Show Contents");
   taContents = new javafx.scene.control.TextArea();
   taContents.setPrefSize(600, 400);
   taContents.setEditable(false);
   taContents.setFont(javafx.scene.text.Font.font("Arial", 12));
   taResult = new javafx.scene.control.TextArea();
   taResult.setPrefSize(500, 400);
   taResult.setEditable(false);
   caution = new javafx.scene.control.Label();
   caution.setAlignment(javafx.geometry.Pos.CENTER_LEFT);
   tfOrderID1 = new javafx.scene.control.TextField();
   btShow1 = new javafx.scene.control.Button("Task #1 Execute");
   tfOrderID2 = new javafx.scene.control.TextField();
   btShow2 = new javafx.scene.control.Button("Task #2 Execute");
   tfState3 = new javafx.scene.control.TextField();
   btShow3 = new javafx.scene.control.Button("Task #3 Execute");
   tfYear4 = new javafx.scene.control.TextField();
```

```
    btShow4 = new javafx.scene.control.Button("Task #4 Execute");
    try {
      // 1. Load the JDBC driver
      java.lang.Class.forName("oracle.jdbc.driver.OracleDriver");
    }
    catch (java.lang.ClassNotFoundException ex) {
      System.out.println("(!) ClassNotFoundException");
    }
    try {
      // 2. Establish a connection
      java.sql.Connection connection = java.sql.DriverManager.getConnection(
            "jdbc:oracle:thin:@localhost:1521:XE",
            "SYSTEM", "2232");
      // 3. Create a statement and metadata
      stmt = connection.createStatement();
      java.sql.DatabaseMetaData dbMetaData = connection.getMetaData();
      java.sql.ResultSet rsTables
            = dbMetaData.getTables(null, null, null, new String[] {"TABLE"});
      while (rsTables.next()) {
        String tableName = new String(rsTables.getString("TABLE_NAME"));
        if (tableName.substring(0, 3).compareTo("JDB") == 0)
          cboTableName.getItems().add(tableName);
      }
      cboTableName.getSelectionModel().selectFirst();
    }
    catch (java.sql.SQLException ex) { System.out.println("(!) SQLException"); }
}

/*
    Methods (Windows)
*/
@Override // Override the start method in the Application class
```

```
public void start(javafx.stage.Stage primaryStage) {
   // Parent (Pane for panes)
   javafx.scene.layout.VBox pane
         = new javafx.scene.layout.VBox(10, new javafx.scene.control.Label(
               "< Midterm Project >"), task1Button, task2Button,
               task3Button, task4Button);
   pane.setPadding(new javafx.geometry.Insets(10));
   pane.setAlignment(javafx.geometry.Pos.CENTER);
   // Scene
   javafx.scene.Scene scene = new javafx.scene.Scene(pane, 600, 400);
   // Stage
   primaryStage.setTitle("Midterm_Project");
   primaryStage.setScene(scene);
   primaryStage.show();
   // ================== JavaFX Event Handler =================
   task1Button.setOnAction(e -> task1(primaryStage));
   task2Button.setOnAction(e -> task2(primaryStage));
   task3Button.setOnAction(e -> task3(primaryStage));
   task4Button.setOnAction(e -> task4(primaryStage));
}
public void task1(javafx.stage.Stage primaryStage) {
   // Starting Set Up
   String explain = "The program will ask the user for an order number, "
         + "and then print out the total for all products in the order, "
         + "considering quantities and discounts.";
   caution.setText(explain);
   taContents.setText("You can look up the Northwind database here. \n"
         + "Use the combo box on the top!");
   taResult.setText("You will check your answer here.");

   // ======================== JavaFX ========================
   // Parent (Pane)
```

```
javafx.scene.layout.HBox hBox = new javafx.scene.layout.HBox(5);
hBox.getChildren().addAll(new javafx.scene.control.Label("Table Name"),
      cboTableName, btShowContents);
hBox.setAlignment(javafx.geometry.Pos.CENTER_LEFT);
hBox.setPadding(new javafx.geometry.Insets(10));
javafx.scene.layout.HBox child = new javafx.scene.layout.HBox(5,
      new javafx.scene.control.Label("Enter an order ID: "),
      tfOrderID1,
      btShow1);
child.setAlignment(javafx.geometry.Pos.TOP_RIGHT);
javafx.scene.layout.HBox buttonSet = new javafx.scene.layout.HBox(backButton);
buttonSet.setAlignment(javafx.geometry.Pos.TOP_RIGHT);
javafx.scene.layout.VBox task1 = new javafx.scene.layout.VBox(20, caution, child, buttonSet);
task1.setPadding(new javafx.geometry.Insets(10));
// Parent (Pane for panes)
javafx.scene.layout.BorderPane pane = new javafx.scene.layout.BorderPane();
pane.setCenter(new javafx.scene.control.ScrollPane(taContents));
pane.setRight(new javafx.scene.control.ScrollPane(taResult));
pane.setTop(hBox);
pane.setBottom(task1);
pane.setPadding(new javafx.geometry.Insets(10));
// Scene
javafx.scene.Scene scene = new javafx.scene.Scene(pane);
// Stage
primaryStage.setTitle("Midterm_Project_Task#1");
primaryStage.setScene(scene);
primaryStage.show();
// ================== JavaFX Event Handler =================
btShowContents.setOnAction(e -> showContents());
backButton.setOnAction(e -> {
   deleteContents();
   start(primaryStage);
```

```
    });
    btShow1.setOnAction(e -> showTask1(explain));
}
public void task2(javafx.stage.Stage primaryStage) {
    // Starting Set Up
    String explain = "The program will ask the user for an order number, "
            + "and then print the order date, freight charge, "
            + "and all products and their quantity, unit price, "
            + "and discount for the order.";
    caution.setText(explain);
    taContents.setText("You can look up the Northwind database here. \n"
            + "Use the combo box on the top!");
    taResult.setText("You will check your answer here.");

    // ======================== JavaFX ========================
    // Parent (Pane)
    javafx.scene.layout.HBox hBox = new javafx.scene.layout.HBox(5);
    hBox.getChildren().addAll(new javafx.scene.control.Label("Table Name"),
            cboTableName, btShowContents);
    hBox.setAlignment(javafx.geometry.Pos.CENTER_LEFT);
    hBox.setPadding(new javafx.geometry.Insets(10));
    javafx.scene.layout.HBox child = new javafx.scene.layout.HBox(5,
            new javafx.scene.control.Label("Enter an order ID: "),
            tfOrderID2,
            btShow2);
    child.setAlignment(javafx.geometry.Pos.TOP_RIGHT);
    javafx.scene.layout.HBox buttonSet = new javafx.scene.layout.HBox(backButton);
    buttonSet.setAlignment(javafx.geometry.Pos.TOP_RIGHT);
    javafx.scene.layout.VBox task1 = new javafx.scene.layout.VBox(20, caution, child, buttonSet);
    task1.setPadding(new javafx.geometry.Insets(10));
    // Parent (Pane for panes)
    javafx.scene.layout.BorderPane pane = new javafx.scene.layout.BorderPane();
```

```
    pane.setCenter(new javafx.scene.control.ScrollPane(taContents));
    pane.setRight(new javafx.scene.control.ScrollPane(taResult));
    pane.setTop(hBox);
    pane.setBottom(task1);
    pane.setPadding(new javafx.geometry.Insets(10));
    // Scene
    javafx.scene.Scene scene = new javafx.scene.Scene(pane);
    // Stage
    primaryStage.setTitle("Midterm_Project_Task#2");
    primaryStage.setScene(scene);
    primaryStage.show();
    // ================== JavaFX Event Handler =================
    btShowContents.setOnAction(e -> showContents());
    backButton.setOnAction(e -> {
      deleteContents();
      start(primaryStage);
    });
    btShow2.setOnAction(e -> showTask2(explain));
}
public void task3(javafx.stage.Stage primaryStage) {
    // Starting Set Up
    String explain = "The program will ask the user for a state, "
          + "and then print out the contact names and cities of "
          + "all customers in this state in order by city.";
    caution.setText(explain);
    taContents.setText("You can look up the Northwind database here. \n"
          + "Use the combo box on the top!");
    taResult.setText("You will check your answer here.");

    // ======================== JavaFX ========================
    // Parent (Pane)
    javafx.scene.layout.HBox hBox = new javafx.scene.layout.HBox(5);
```

```
hBox.getChildren().addAll(new javafx.scene.control.Label("Table Name"),
      cboTableName, btShowContents);
hBox.setAlignment(javafx.geometry.Pos.CENTER_LEFT);
hBox.setPadding(new javafx.geometry.Insets(10));
javafx.scene.layout.HBox child = new javafx.scene.layout.HBox(5,
      new javafx.scene.control.Label("Enter a state: "),
      tfState3,
      btShow3);
child.setAlignment(javafx.geometry.Pos.TOP_RIGHT);
javafx.scene.layout.HBox buttonSet = new javafx.scene.layout.HBox(backButton);
buttonSet.setAlignment(javafx.geometry.Pos.TOP_RIGHT);
javafx.scene.layout.VBox task1 = new javafx.scene.layout.VBox(20, caution, child, buttonSet);
task1.setPadding(new javafx.geometry.Insets(10));
// Parent (Pane for panes)
javafx.scene.layout.BorderPane pane = new javafx.scene.layout.BorderPane();
pane.setCenter(new javafx.scene.control.ScrollPane(taContents));
pane.setRight(new javafx.scene.control.ScrollPane(taResult));
pane.setTop(hBox);
pane.setBottom(task1);
pane.setPadding(new javafx.geometry.Insets(10));
// Scene
javafx.scene.Scene scene = new javafx.scene.Scene(pane);
// Stage
primaryStage.setTitle("Midterm_Project_Task#3");
primaryStage.setScene(scene);
primaryStage.show();
// ================== JavaFX Event Handler =================
btShowContents.setOnAction(e -> showContents());
backButton.setOnAction(e -> {
   deleteContents();
   start(primaryStage);
});
```

```
    btShow3.setOnAction(e -> showTask3(explain));
}
public void task4(javafx.stage.Stage primaryStage) {
    // Starting Set Up
    String explain = "The program will ask the user for a year, "
            + "and then print out the first names and last names "
            + "(in alphabetical order by last name) of all employees "
            + "who were born during that year.";
    caution.setText(explain);
    taContents.setText("You can look up the Northwind database here. \n"
            + "Use the combo box on the top!");
    taResult.setText("You will check your answer here.");
    // ======================== JavaFX ======================
    // Parent (Pane)
    javafx.scene.layout.HBox hBox = new javafx.scene.layout.HBox(5);
    hBox.getChildren().addAll(new javafx.scene.control.Label("Table Name"),
            cboTableName, btShowContents);
    hBox.setAlignment(javafx.geometry.Pos.CENTER_LEFT);
    hBox.setPadding(new javafx.geometry.Insets(10));
    javafx.scene.layout.HBox child = new javafx.scene.layout.HBox(5,
            new javafx.scene.control.Label("Enter an year: "),
            tfYear4,
            btShow4);
    child.setAlignment(javafx.geometry.Pos.TOP_RIGHT);
    javafx.scene.layout.HBox buttonSet = new javafx.scene.layout.HBox(backButton);
    buttonSet.setAlignment(javafx.geometry.Pos.TOP_RIGHT);
    javafx.scene.layout.VBox task1 = new javafx.scene.layout.VBox(20, caution, child, buttonSet);
    task1.setPadding(new javafx.geometry.Insets(10));
    // Parent (Pane for panes)
    javafx.scene.layout.BorderPane pane = new javafx.scene.layout.BorderPane();
    pane.setCenter(new javafx.scene.control.ScrollPane(taContents));
    pane.setRight(new javafx.scene.control.ScrollPane(taResult));
```

```
    pane.setTop(hBox);
    pane.setBottom(task1);
    pane.setPadding(new javafx.geometry.Insets(10));
    // Scene
    javafx.scene.Scene scene = new javafx.scene.Scene(pane);
    // Stage
    primaryStage.setTitle("Midterm_Project_Task#4");
    primaryStage.setScene(scene);
    primaryStage.show();
    // ================== JavaFX Event Handler =================
    btShowContents.setOnAction(e -> showContents());
    backButton.setOnAction(e -> {
        deleteContents();
        start(primaryStage);
    });
    btShow4.setOnAction(e -> showTask4(explain));
}

/*
    Methods (Internal Works for Attributes Modification)
*/
private void showContents() {
    try {
        taContents.clear();
        // 4..... SQL command
        String tableName = cboTableName.getValue();
        String queryString = "select * from " + tableName;
        // 4. Execute a statement
        java.sql.ResultSet resultSet = stmt.executeQuery(queryString);
        java.sql.ResultSetMetaData rsMetaData = resultSet.getMetaData();
        // 5. Iterate through the result
```

```
///******* Settings
java.util.ArrayList<Integer> maxLengths = new java.util.ArrayList<>();
String nullString = new java.lang.String("(null)");
if (resultSet.next()) {
   for (int i = 1; i <= rsMetaData.getColumnCount(); i++) {
      if (resultSet.getString(i) != null) {
         maxLengths.add(resultSet.getString(i).length());
      }
      else {
         maxLengths.add(nullString.length());
      }
   }
} resultSet = stmt.executeQuery(queryString);
while (resultSet.next()) {
   for (int i = 1; i <= rsMetaData.getColumnCount(); i++) {
      if (resultSet.getString(i) != null) {
         if (maxLengths.get(i-1) < resultSet.getString(i).length())
            maxLengths.set(i-1, resultSet.getString(i).length());
      }
      else {
         if (maxLengths.get(i-1) < nullString.length())
            maxLengths.set(i-1, nullString.length());
      }
   }
} resultSet = stmt.executeQuery(queryString);

///******* Header
String command;
for (int i = 1; i <= rsMetaData.getColumnCount(); i++) {
   command = "%-" + (maxLengths.get(i-1).intValue() + 2) +"s\t|\t";
   taContents.appendText(java.lang.String.format(command,
         rsMetaData.getColumnName(i).toLowerCase())
```

```
    );
}
taContents.appendText("\n----------------------------------------------------------"
        + "----------------------------------------------------------");

///******* Contents
String text;
String subtext1, subtext2;
taContents.appendText("\n");
while (resultSet.next()) {
    for (int i = 1; i <= rsMetaData.getColumnCount(); i++) {
        // Format String
        command = "%-" + (maxLengths.get(i-1).intValue() + 2) +"s\t|\t";
        // Validation on Bad Data
        text = resultSet.getString(i);
        int newlineIndex;
        if (text != null) {
            for (int index = 0; index < text.length(); index++) {
                if (text.charAt(index) == '\n') {
                    newlineIndex = index;
                    subtext1 = text.substring(0, newlineIndex);
                    subtext2 = text.substring(newlineIndex+1);
                    text = subtext1.trim() + ' ' + subtext2.trim();
                }
            }
        }
        taContents.appendText(java.lang.String.format(command,
                text)
        );
    }
    taContents.appendText("\n");
}
```

```
    }
    catch (java.sql.SQLException ex) { System.out.println("(!) SQLException"); }
}
private void deleteContents() {
    taContents.clear();
    taResult.clear();
    caution.setText("");
    caution.setTextFill(javafx.scene.paint.Color.BLACK);
    tfOrderID1.setText("");
    tfOrderID2.setText("");
    tfState3.setText("");
    tfYear4.setText("");
}
private void showTask1(String explain) {
    try {
        boolean isEmpty = true;
        taResult.clear();

        // 4..... SQL command
        String orderID = tfOrderID1.getText();
        String queryString
              = "SELECT unitprice * quantity * (1 - discount) "
              + "FROM jdbc_orderdetails "
              + "WHERE orderid = " + orderID;
        // 4. Execute a statement
        java.sql.ResultSet resultSet = stmt.executeQuery(queryString);
        java.sql.ResultSetMetaData rsMetaData = resultSet.getMetaData();
        // 5. Iterate through the result


        ///******* Header
        taResult.appendText(java.lang.String.format("%17s", "Total Price")
```

```
   );
taResult.appendText("\n");
taResult.appendText("--------------------------\n");
///******* Result
java.util.ArrayList<Double> totals = new java.util.ArrayList<>();
int counter = -1;
taResult.appendText("Subtotals: \n");
while (resultSet.next()) {
   counter++;
   isEmpty = false;
   totals.add(java.lang.Double.valueOf(resultSet.getString(1).trim()));
   taResult.appendText(java.lang.String.format("\t\t\t$ %-17.2f", totals.get(counter)));
   taResult.appendText("\n");         // total for each product
}
double accumulator = 0;
if (counter >= 0) {
   for (int i = 0; i < totals.size();i++) {
      accumulator += totals.get(i);
   }
   taResult.appendText("--------------------------\n");
   taResult.appendText("Total Cost: \n");
   taResult.appendText(java.lang.String.format("\t\t\t$ %-17.2f", accumulator));
   taResult.appendText("\n");         // total for a single order id
}
```

```
if (isEmpty) {
   caution.setText("Sorry, data is not found. Have another try!");
   caution.setTextFill(javafx.scene.paint.Color.RED);
```

```
        }
        else {
           caution.setText(explain + " (Data Found)");
           caution.setTextFill(javafx.scene.paint.Color.GREEN);
        }

     }
     catch (java.sql.SQLException ex) { System.out.println("(!) SQLException"); }
}
private void showTask2(String explain) {
     try {
        boolean isEmpty = true;
        taResult.clear();

        // 4..... SQL command
        String orderID = tfOrderID2.getText(); // Important ***********
        String queryString
              = "SELECT jdbc_orders.orderdate, "
              + "jdbc_orders.freight, "
              + "jdbc_products.productname, "
              + "jdbc_orderdetails.quantity, "
              + "jdbc_orderdetails.unitprice, "
              + "jdbc_orderdetails.discount "
              + "FROM jdbc_orders, jdbc_products, jdbc_orderdetails "
              + "WHERE (jdbc_orderdetails.orderid = jdbc_orders.orderid "
              + "AND jdbc_products.productid = jdbc_orderdetails.productid "
              + "AND jdbc_orders.orderid = "+ orderID +")";
        // 4. Execute a statement
        java.sql.ResultSet resultSet = stmt.executeQuery(queryString);
        java.sql.ResultSetMetaData rsMetaData = resultSet.getMetaData();
        // 5. Iterate through the result
```

```
///******* Header
taResult.appendText(java.lang.String.format("%80s", "Order Details")
   );
taResult.appendText("\n");
taResult.appendText("----------"
      + "----------"
      + "----------\n");
taResult.appendText(java.lang.String.format("%-12s|\t%-16s|\t%-10s|"
      + "\t%-12s|\t%-10s|\t%-40s",
      "Order Date",
      "Freight Charge",
      "Quantity",
      "Unit Price",
      "Discount",
      "Product Name")
   );
taResult.appendText("\n");
taResult.appendText("----------"
      + "----------"
      + "----------\n");

///******* Result
while (resultSet.next()) {
   isEmpty = false;
   taResult.appendText(java.lang.String.format("%-12s\t|\t$ "
         + "%-14.2f|\t%-10d\t|\t$ %-10.2f\t|\t%9.0f%%\t|\t%-40s",
         resultSet.getString(1).trim().substring(0, 10),
         java.lang.Double.valueOf(resultSet.getString(2).trim()),
         java.lang.Integer.valueOf(resultSet.getString(4).trim()),
         java.lang.Double.valueOf(resultSet.getString(5).trim()),
         java.lang.Double.valueOf(resultSet.getString(6).trim())*100.0,
         resultSet.getString(3).trim())
```

```
            );
            taResult.appendText("\n");
        }

        if (isEmpty) {
            caution.setText("Sorry, data is not found. Have another try!");
            caution.setTextFill(javafx.scene.paint.Color.RED);
        }
        else {
            caution.setText(explain + " (Data Found)");
            caution.setTextFill(javafx.scene.paint.Color.GREEN);
        }

    }
    catch (java.sql.SQLException ex) { System.out.println("(!) SQLException"); }
}
private void showTask3(String explain) {
    try {
        boolean isEmpty = true;
        taResult.clear();

        // 4..... SQL command
        String region = tfState3.getText(); // Important ************
        String queryString
                = "SELECT contactname, city "
                + "FROM jdbc_customers "
                + "WHERE(region = '" + region + "') "
                + "ORDER BY city ASC NULLS LAST";
        // 4. Execute a statement
        java.sql.ResultSet resultSet = stmt.executeQuery(queryString);
        java.sql.ResultSetMetaData rsMetaData = resultSet.getMetaData();
        // 5. Iterate through the result
```

```
        ///******* Header
        taResult.appendText(java.lang.String.format("%-30s\t|%10s",
              "Customer Name",
              "City")
        );
        taResult.appendText("\n");
        taResult.appendText("----------------------------"
              + "------------------------\n");
        ///******* Result
        while (resultSet.next()) {
           isEmpty = false;
           taResult.appendText(java.lang.String.format("%-30s\t|%10s",
                    resultSet.getString(1),
                    resultSet.getString(2)));
           taResult.appendText("\n");
        }

        if (isEmpty) {
           caution.setText("Sorry, data is not found. Have another try!");
           caution.setTextFill(javafx.scene.paint.Color.RED);
        }
        else {
           caution.setText(explain + " (Data Found)");
           caution.setTextFill(javafx.scene.paint.Color.GREEN);
        }
     }
     catch (java.sql.SQLException ex) { System.out.println("(!) SQLException"); }
  }
  private void showTask4(String explain) {
     try {
        boolean isEmpty = true;
```

```
taResult.clear();

// 4..... SQL command
String year = tfYear4.getText();
if (year.length() == 4)
   year = year.substring(2);
else
   year = "a";
String queryString
      = "SELECT firstname, lastname "
      + "FROM jdbc_employees "
      + "WHERE (birthdate LIKE '%" + year + "') "
      + "ORDER BY lastname ASC NULLS LAST";
// 4. Execute a statement
java.sql.ResultSet resultSet = stmt.executeQuery(queryString);
java.sql.ResultSetMetaData rsMetaData = resultSet.getMetaData();
// 5. Iterate through the result

///******* Header
taResult.appendText("Employee Name");
taResult.appendText("\n");
taResult.appendText("-----------------------------\n");
///******* Result
while (resultSet.next()) {
   isEmpty = false;
   taResult.appendText(resultSet.getString(1) + " " + resultSet.getString(2));
   // Contents
   taResult.appendText("\n");
}

if (isEmpty) {
   caution.setText("Sorry, data is not found. Have another try!");
```

```
            caution.setTextFill(javafx.scene.paint.Color.RED);
          }
          else {
            caution.setText(explain + " (Data Found)");
            caution.setTextFill(javafx.scene.paint.Color.GREEN);
          }
        }
        catch (java.sql.SQLException ex) { System.out.println("(!) SQLException"); }
    }

    /*
      main Function
    */
    public static void main(String[] args) {
      launch(args);
    }
}
```

Executions

The execution part is intentionally left blank. To see the execution of the program, watch the video file attached.

The timeline of the video is as follows.

0:00 – Database Settings

1:17 – Windows Control

2:28 – Execution #1

5:51 – Execution #2, #3, and #4