



CS6004ES Application Development

Individual Coursework (2023/24)

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Date : Thursday, 05 September 2024

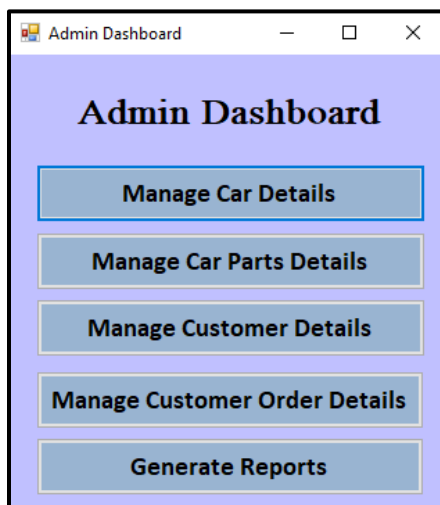
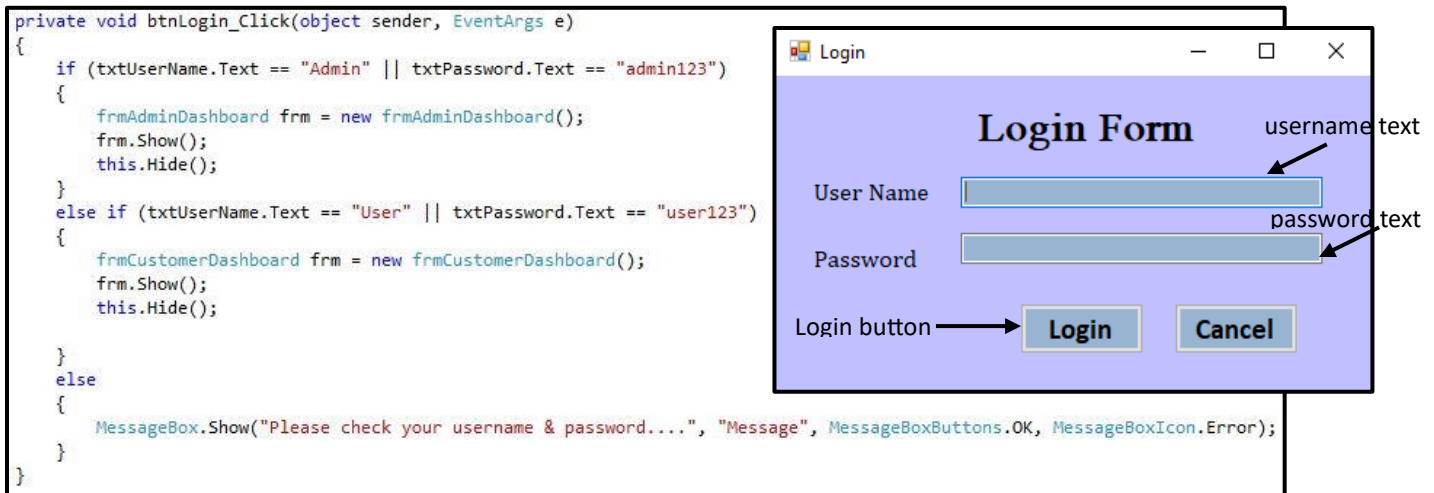
Supervisor : Mr. Chamila Karunathilake

Deadline : 09/09/2024

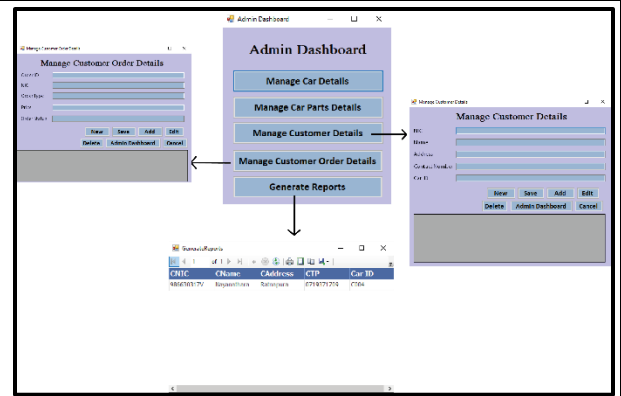
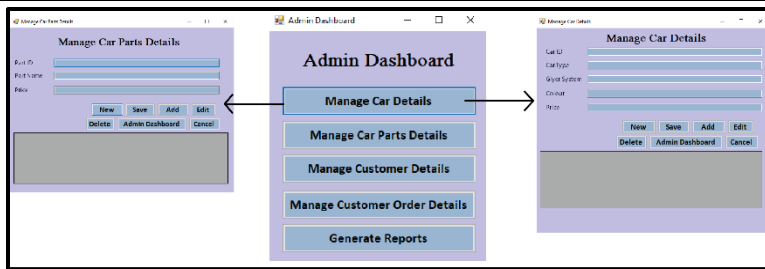
This application is built for ABC Car Traders to manage customers and admin requirements. This system could solve some problems that face in handling business for admin and problems that faced in ordering things by customer. This has a user-friendly interface for users. This system has completed by using C# with SQL database connectivity. There will be two user levels, which are Admin and Customer.

Github Link for System Codes : <https://github.com/Nayanathara98/Application-Development>

Admins have one unique username and password, and all customers have a unique username and password. After logging using their username and password, admin can see separates dashboard for done what they want to do, and customer can see separates dashboard for done what they want to do. User can log to the system by type username in username text box, password in password text box and press login button. Login form and the login form codes using C# mentioned follow.



Admin has one unique username and password. After logging using their username and password, admin can see separate dashboard for done what they want to do. Each data can be only updated or managed by the management at the Admin Dashboard. The Admin Dashboard can be accessed only for the Admin. Admin can Manage Car Details, Manage Car Parts Details. Manage Customer Details, Manage Customer, Order Details, Generate Reports through Admin Dashboard.



There are five buttons for admin in admin dashboard to do what they want to do. By clicking on those buttons, admin can open the form related to it. Admin can Manage Car Details by Manage Car Details form, Manage Car Parts Details by Manage Car Parts Details form, Manage Customer Details by Manage Customer Details, Manage Customer Order Details by Manage Customer Order Details and Report generating by Generate Reports form. In admin dashboard, there are five buttons to code.

Button Manage Car Details is coded using C# as follows.

```
private void btnManageCarDetails_Click(object sender, EventArgs e)
{
    frmManageCarDetails ManageCarDetails = new frmManageCarDetails();
    ManageCarDetails.Show();
    this.Hide();
}
```

Button Manage Car Parts Details is coded using C# as follows.

```
private void btnManageCarPartsDetails_Click(object sender, EventArgs e)
{
    frmManageCarPartsDetails ManageCarPartsDetails = new frmManageCarPartsDetails();
    ManageCarPartsDetails.Show();
    this.Hide();
}
```

Button Manage Customer Details is coded using C# as follows.

```
private void btnManageCustomerDetails_Click(object sender, EventArgs e)
{
    frmManageCustomerDetails ManageCustomerDetails = new frmManageCustomerDetails();
    ManageCustomerDetails.Show();
    this.Hide();
}
```

Button Manage Customer Order Details is coded using C# as follows.

```
private void btnManageCustomerOrderDetails_Click(object sender, EventArgs e)
{
    frmManageCustomerOrderDetails ManageCustomerOrderDetails = new frmManageCustomerOrderDetails();
    ManageCustomerOrderDetails.Show();
    this.Hide();
}
```

Button Generate Reports is coded using C# as follows.

```
private void btnGenerateReports_Click(object sender, EventArgs e)
{
    frmGenerateReports GenerateReports = new frmGenerateReports();
    GenerateReports.Show();
    this.Hide();
}
```

Admin can get access for Manage Car Details form by click on the Manage Car Details Button on Admin Dashboard. By this form Admin can add car details, save those details, update that details, delete unwanted details about cars, go back to the Admin Dashboard and exit from the system.

Admin can get access for Manage Car Parts Details form by click on the Manage Car Parts Details Button on Admin Dashboard. By this form Admin can add car parts details, save those details, update that details, delete unwanted details about car parts, go back to the Admin Dashboard and exit from the system.

Admin can get access for Manage Customer Details form by click on the Manage Customer Details Button on Admin Dashboard. By this form Admin can add customer details, save those details, update that details, delete unwanted details about customer, go back to the Admin Dashboard and exit from the system.

Admin can get access for Manage Customer Order Details form by click on the Manage Customer Order Details Button on Admin Dashboard. By this form Admin can add customer order details, save those details, update that details, delete unwanted details about customer orders, go back to the Admin Dashboard and exit from the system.

Admin can get access for Generate Reports by click on the Generate Reports Button on Admin Dashboard. By this form Admin can generate details of customers as a report from the system.

CNIC	CName	CAddress	CTP	Car ID
986630317V	Nayanathara	Ratnapura	0719371709	C004

Customer Dashboard

Register

Search Car Details

Search Car Parts Details

Order Car/Car Parts

View Order Status

Customers have one unique username and password. After logging using their username and password, customer can see separate dashboard for done what they want to do. Each data can be search or added by the customer at the Customer Dashboard. The Customer Dashboard can be accessed only for the Customer. Customer can Register, Search Car Details, Search Car Parts Details, Order Car/Car Parts, View Order Status through Customer Dashboard.

There are five buttons for customer in customer dashboard to done what they want to do. By click on that buttons customer can open the form related to it. Customer can register themselves to the system by Register form, Search Car Details through Search Car Details form, Search Car Parts Details by Search Car Parts Details form, Order Car or Car Parts by Order Car or Car Parts form and View Order Status by View Order Status form. In customer dashboard there are five buttons to code.

The diagram shows the 'Customer Dashboard' window with the 'Register' button highlighted. An arrow points from this button to the 'Customer Registration' form. Another arrow points from the 'Search Car Details' button in the dashboard to the 'Search Car Details' form.

The diagram shows the 'Customer Dashboard' window with the 'Order Car/Car Parts' button highlighted. An arrow points from this button to the 'Order Car / Car Parts' form. Another arrow points from the 'View Order Status' button in the dashboard to the 'View Order Status' form.

Button Register is coded using C# as follow.

```
private void btnRegister_Click(object sender, EventArgs e)
{
    frmRegister Register = new frmRegister();
    Register.Show();
    this.Hide();
}
```

Button Search Car Details is coded using C# as follow.

```
private void btnSearchCarDetails_Click(object sender, EventArgs e)
{
    frmSearchCarDetails SearchCarDetails = new frmSearchCarDetails();
    SearchCarDetails.Show();
    this.Hide();
}
```

Button Search Car Parts Details is coded using C# as follow.

```
private void btnSearchCarPartsDetails_Click(object sender, EventArgs e)
{
    frmSearchCarPartsDetails SearchCarPartsDetails = new frmSearchCarPartsDetails();
    SearchCarPartsDetails.Show();
    this.Hide();
}
```

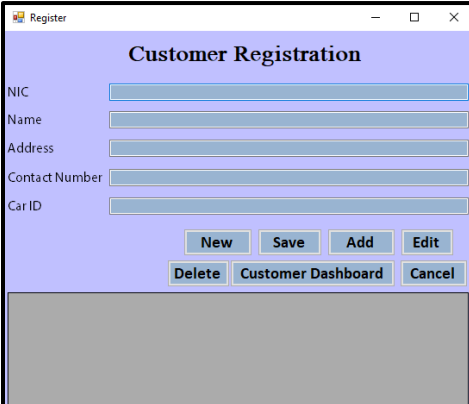

Button Order Car or Car Parts is coded using C# as follow.

```
private void btnOrderCarorParts_Click(object sender, EventArgs e)
{
    frmOrderCarorCarParts OrderCarorCarParts = new frmOrderCarorCarParts();
    OrderCarorCarParts.Show();
    this.Hide();
}
```

Button View Order Status is coded using C# as follow.

```
private void btnViewOrderStatus_Click(object sender, EventArgs e)
{
    frmViewOrderStatus ViewOrderStatus = new frmViewOrderStatus();
    ViewOrderStatus.Show();
    this.Hide();
}
```

Customer can get access for Register form by click on the Register Button on Customer Dashboard. By this form Customer can register themselves for the system by adding customer details, save those details, update that details, delete unwanted details about customer, go back to the Customer Dashboard and exit from the system.

The screenshot shows a window titled "Register" with a subtitle "Customer Registration". It contains several text input fields for "NIC", "Name", "Address", "Contact Number", and "CarID". Below these fields are four buttons: "New", "Save", "Add", and "Edit". At the bottom, there are three buttons: "Delete", "Customer Dashboard", and "Cancel".The screenshot shows a window titled "Search Car Details". It contains five text input fields labeled "CarID", "CarType", "Giyer System", "Colour", and "Price". To the right of the "CarID" field is a "Search" button. At the bottom, there are two buttons: "Customer Dashboard" and "Cancel".

Customer can get access for Search Car Details form by click on the Search Car Details Button on Customer Dashboard. By this form Customer can search about cars. Type the CarID in the CarID text box and select Search button then all the details about that car will be shown to the customer. Also, customer can go back to the Customer Dashboard and exit from the system.

Customer can get access for Search Car Parts Details form by click on the Search Car Parts Details Button on Customer Dashboard. By this form Customer can search about car parts. Type the PartID in the PartID text box and select Search button then all the details about that car parts will be shown to the customer. Also, customer can go back to the Customer Dashboard and exit from the system.

The screenshot shows a window titled "Search Car Parts Details". It contains three text input fields labeled "Part ID", "Part Name", and "Price". To the right of the "Part ID" field is a "Search" button. At the bottom, there are two buttons: "Customer Dashboard" and "Cancel".

Customer can get access for Order Car or Car Parts form by click on the Order Car or Car Parts Button on Customer Dashboard. By this form Customer can add order details, save those details, update that details, delete unwanted details about orders, go back to the Customer Dashboard and exit from the system.

Customer can get access for View Order Status form by click on the View Order Status Button on Customer Dashboard. By this form Customer can search about their orders. Type the OrderID in the OrderID text box and select Search button then all the details about that orders will be shown to the customer. Also, customer can go back to the Customer Dashboard and exit from the system.

Button Add is coded using C# as follow.

```
private void btnAdd_Click(object sender, EventArgs e)
{
    SqlConnection con = new SqlConnection(@"Data Source=(LocalDB)\v11.0;AttachDbFilename=F:\Hansi\ESOFT\Assignments\Application Development\ADAssignment\ADAssignment\ADAssignmentDB.mdf;Integrated Security=True");
    con.Open();
    SqlCommand command = new SqlCommand("select * from ManageCarDetails", con);
    SqlDataAdapter dataadapter = new SqlDataAdapter(command);
    DataTable datatable = new DataTable();
    dataadapter.Fill(datatable);
    dataGridView1.DataSource = datatable;
}
```

Button New is coded using C# as follow.

```
private void btnNew_Click(object sender, EventArgs e)
{
    txtCarID.Text = "";
    txtCarType.Text = "";
    txtGiyerSystem.Text = "";
    txtColour.Text = "";
    txtPrice.Text = "";
}
```

Button Save is coded using C# as follow.

```
private void btnSave_Click(object sender, EventArgs e)
{
    SqlConnection con = new SqlConnection(@"Data Source=(LocalDB)\v11.0;AttachDbFilename=F:\Hansi\ESOFT\Assignments\Application Development\ADAssignment\ADAssignment\ADAssignmentDB.mdf;Integrated Security=True");
    con.Open();
    SqlCommand command = new SqlCommand("insert into ManageCarDetails values (@CarID, @CarType, @GiyerSystem, @Colour, @Price)", con);
    command.Parameters.AddWithValue("@CarID", (txtCarID.Text));
    command.Parameters.AddWithValue("@CarType", (txtCarType.Text));
    command.Parameters.AddWithValue("@GiyerSystem", (txtGiyerSystem.Text));
    command.Parameters.AddWithValue("@Colour", (txtColour.Text));
    command.Parameters.AddWithValue("@Price", (txtPrice.Text));
    command.ExecuteNonQuery();
    con.Close();
    MessageBox.Show("Data Saved Successfully....", "Message", MessageBoxButtons.OK, MessageBoxIcon.Information);
}
```

Button Edit is coded using C# as follow.

```
private void btnEdit_Click(object sender, EventArgs e)
{
    SqlConnection con = new SqlConnection(@"Data Source=(LocalDB)\v11.0;AttachDbFilename=F:\Hansi\ESOFT\Assignments\Application Development\ADAssignment\ADAssignment\ADAssignmentDB.mdf;Integrated Security=True");
    con.Open();
    SqlCommand command = new SqlCommand("update ManageCarDetails set CarType=@CarType, GiyerSystem=@GiyerSystem, Colour=@Colour, Price=@Price where CarID=@CarID", con);
    command.Parameters.AddWithValue("@CarID", (txtCarID.Text));
    command.Parameters.AddWithValue("@CarType", (txtCarType.Text));
    command.Parameters.AddWithValue("@GiyerSystem", (txtGiyerSystem.Text));
    command.Parameters.AddWithValue("@Colour", (txtColour.Text));
    command.Parameters.AddWithValue("@Price", (txtPrice.Text));
    command.ExecuteNonQuery();
    con.Close();
    MessageBox.Show("Data Updated Successfully....", "Message", MessageBoxButtons.OK, MessageBoxIcon.Information);
}
```

Button Delete is coded using C# as follow.

```
private void btnDelete_Click(object sender, EventArgs e)
{
    SqlConnection con = new SqlConnection(@"Data Source=(LocalDB)\v11.0;AttachDbFilename=F:\Hansi\ESOFT\Assignments\Application Development\ADAssignment\ADAssignment\ADAssignmentDB.mdf;Integrated Security=True");
    con.Open();
    SqlCommand command = new SqlCommand("delete ManageCarDetails where CarID=@CarID", con);
    command.Parameters.AddWithValue("@CarID", (txtCarID.Text));
    command.ExecuteNonQuery();
    con.Close();
    MessageBox.Show("Data Deleted Successfully....", "Message", MessageBoxButtons.OK, MessageBoxIcon.Information);
}
```

Button Search is coded using C# as follow.

```
private void btnSearch_Click(object sender, EventArgs e)
{
    SqlConnection con = new SqlConnection(@"Data Source=(LocalDB)\v11.0;AttachDbFilename=F:\Hansi\ESOFT\Assignments\Application Development\ADAssignment\ADAssignment\ADAssignmentDB.mdf;Integrated Security=True");
    con.Open();
    SqlCommand command = new SqlCommand("Select CNIC, OrderType, Price, OrderStatus from ManageCustomerOrderDetails where CarID=@idcar", con);
    command.Parameters.AddWithValue("@idcar", txtOrderID.Text.Trim());
    SqlDataReader datareader;
    datareader = command.ExecuteReader();
    if (datareader.Read())
    {
        txtNIC.Text = datareader["CNIC"].ToString();
        txtOrderType.Text = datareader["OrderType"].ToString();
        txtPrice.Text = datareader["Price"].ToString();
        txtOrderStatus.Text = datareader["OrderStatus"].ToString();
    }
    else
    {
        txtNIC.Text = "";
        txtOrderType.Text = "";
        txtPrice.Text = "";
        txtOrderStatus.Text = "";
        MessageBox.Show("No data found....", "Information", MessageBoxButtons.OK, MessageBoxIcon.Information);
    }
    con.Close();
}
```

To get data in data grid when form is loaded this code using C# as follow.

```
private void showDataGridData()
{
    SqlConnection con = new SqlConnection(@"Data Source=(LocalDB)\v11.0;AttachDbFilename=F:\Hansi\ESOFT\Assignments\Application Development\ADAssignment\ADAssignment\ADAssignmentDB.mdf;Integrated Security=True");
    con.Open();
    SqlCommand command = new SqlCommand("select * from ManageCarDetails", con);
    SqlDataAdapter dataadapter = new SqlDataAdapter(command);
    DataTable datatable = new DataTable();
    dataadapter.Fill(datatable);
    dataGridView1.DataSource = datatable;
}

private void frmManageCarDetails_Load(object sender, EventArgs e)
{
    showDataGridData();
}
```

Button Exit is coded using C# as follow.

```
private void btnCancel_Click(object sender, EventArgs e)
{
    Application.Exit();
}
```

Button Admin Dashboard is coded using C# as follow.

```
private void btnAdminDashboard_Click(object sender, EventArgs e)
{
    frmAdminDashboard admin = new frmAdminDashboard();
    admin.Show();
    this.Hide();
}
```

Button Customer Dashboard is coded using C# as follow.

```
private void btnCustomerDashboard_Click(object sender, EventArgs e)
{
    frmCustomerDashboard customer = new frmCustomerDashboard();
    customer.Show();
    this.Hide();
}
```