Bahria University,

Karachi Campus



LAB EXPERIMENT NO.

\_\_\_12\_\_\_

LIST OF TASKS

|  |  |
| --- | --- |
| TASK NO | OBJECTIVE |
| **01** | **Create layered architecture style project for Generating Marksheet**  **of a student.The system can be able to add new students  add scores of subjects(you can make 5 subjects of your choice)  Show list of students from database  Generate mark sheet for for particular student when click on it.** |
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Submitted On:

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(Date: DD/MM/YY)

**Task No 01:** Create layered architecture style project for Generating Marksheet

of a student.The system can be able to add new students add scores of subjects(you can make 5 subjects of your choice) Show list of students from database Generate mark sheet for particular student when click on it.

**Solution:**

private void button1\_Click(object sender, EventArgs e){ MessageBox.Show("Record Saved"); }

private void button2\_Click(object sender, EventArgs e) { textBox1.Text = ""; textBox2.Text = "";

textBox3.Text = ""; }

private void button5\_Click(object sender, EventArgs e) { this.Close(); }

private void button3\_Click(object sender, EventArgs e) {

Sheet sht = new Sheet(); sht.Show(); this.Hide(); }

private void button5\_Click(object sender, EventArgs e){

Form1 srm = new Form1(); this.Hide(); srm.Show(); }

private void button1\_Click(object sender, EventArgs e) {

double total = double.Parse(textBox2.Text) + double.Parse(textBox4.Text) + double.Parse(textBox6.Text) + double.Parse(textBox7.Text) + double.Parse(textBox10.Text) + double.Parse(textBox11.Text);

label22.Text = total.ToString();

double totalmarks = 600, percentage = (total\*100)/ totalmarks;

if (percentage>=80) { label26.Text = "A+"; }

else if(percentage >= 70 && percentage<80) { label26.Text = "A"; }

else if (percentage >= 60 && percentage < 70) { label26.Text = "B"; }

else if (percentage >= 50 && percentage < 60) { label26.Text = "C"; }

else if (percentage >= 40 && percentage < 50) { label26.Text = "D"; }

else if ( percentage < 40) { label26.Text = "Fail"; } }

namespace Marksheet{

public partial class Sheet : Form{

public Sheet(){ InitializeComponent(); }

private void button5\_Click(object sender, EventArgs e) { Form1 srm = new Form1();

this.Hide(); srm.Show(); }

private void button1\_Click(object sender, EventArgs e) {

double total = double.Parse(textBox2.Text) + double.Parse(textBox4.Text) + double.Parse(textBox6.Text) + double.Parse(textBox7.Text) + double.Parse(textBox10.Text) + double.Parse(textBox11.Text);

label22.Text = total.ToString(); double totalmarks = 600;

double percentage = (total\*100)/ totalmarks; label24.Text = percentage.ToString();

if (percentage>=80) { label26.Text = "A+"; }

else if(percentage >= 70 && percentage<80) { label26.Text = "A"; }

else if (percentage >= 60 && percentage < 70) { label26.Text = "B"; }

else if (percentage >= 50 && percentage < 60) { label26.Text = "C"; }

else if (percentage >= 40 && percentage < 50) { label26.Text = "D"; }

else if ( percentage < 40) { label26.Text = "Fail"; } } } }

**Business Logic Layer**

public class BusinessLogicClass {

Users users; DataAccessClass dataAccessClass;

public BusinessLogicClass() {

dataAccessClass = new DataAccessClass();

users = new Users();

public int View MarksheetData(String username, String StudentID) {

users.UserName = username; users.StudentID = StudentID;

String query = "Select UserName, StudentID from customtab where UserName= '" + users.UserName + "' and StudentID='" + users.StudentID + "'";

if (dataAccessClass.loginForm(query) == 0) { MessageBox.Show("Error has occured");

return 0; }

else { return 1; } }

public void InsertMarksheetRecord(String StdId, String Course1, String Course2, String Course3, String Course4,String Course5, String Course6, String total, String Perc, String Grade){

String Query = "insert into StdMarks(StdID ,course1, course2, course3 ,course4,course5,course6,total,percentage,grade) values('" + textBox2.Text + "','" + textBox4.Text + "','" + textBox6.Text + "','" + textBox7.Text + "','" + textBox10.Text + "','" + textBox11.Text + "','" + label22.Text + "','" + label24.Text + "','" + label26.Text + "')";

dataAccessClass.DataManipulationOperation(Query);}

void StudentData(String StdId, String Name, String Fname, String Age, String Gender, String Class) {String Query = "insert into Student(StdID ,Name, Fname, Age ,Gender,Class) values('" + textBox1.Text + "','" + textBox2.Text + "','" + textBox3.Text + "','" + monthCalendar1.Text + "','" + comboBox1.Text + "','" + comboBox2.Text + "')";

dataAccessClass.DataManipulationOperation(Query);} } }

**Data Access Layer**

public class DataAccessClass {

SqlConnection conn; SqlCommand cmd; SqlDataAdapter sda; DataTable dt; Users users;

public DataAccessClass() {

SqlConnection con = new SqlConnection("Data Source = DESKTOP-T14TCK4\\MALIK; Initial Catalog = School\_Management\_System; Integrated Security = True");

conn = new SqlConnection(connectionString); users = new Users(); }

public bool DataManipulationOperation(string query) { conn.Open();

cmd = new SqlCommand(query, conn); int count = cmd.ExecuteNonQuery();

if (count > 0){ conn.Close(); return true; }

conn.Close(); return false; }

public DataTable DataNavigationOperations(string query) {

cmd = new SqlCommand(query, conn); sda = new SqlDataAdapter(cmd);

dt = new DataTable(); sda.Fill(dt);

if (dt.Rows != null) { return dt; }

return null; }

public int loginForm(String query) {\

int count = 0; conn.Open();

cmd = new SqlCommand(query, conn); cmd.Connection = conn;

cmd.CommandText = query; SqlDataReader reader = cmd.ExecuteReader();

while (reader.Read()){ count = count + 1; }

if (count == 1) { conn.Close(); return 1; }

else { conn.Close(); return 0; } } } }

A screenshot of a computer

Description automatically generated with medium confidence**Output:**

Adeeb

Akbar

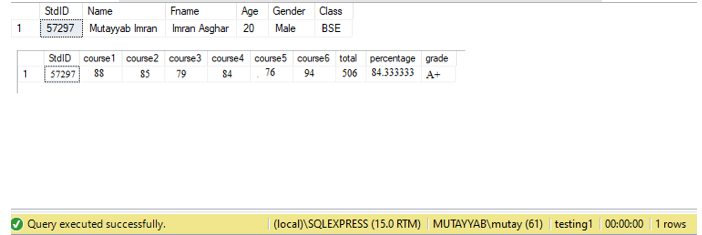
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**Database**

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