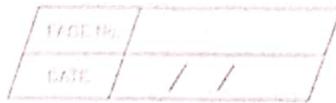
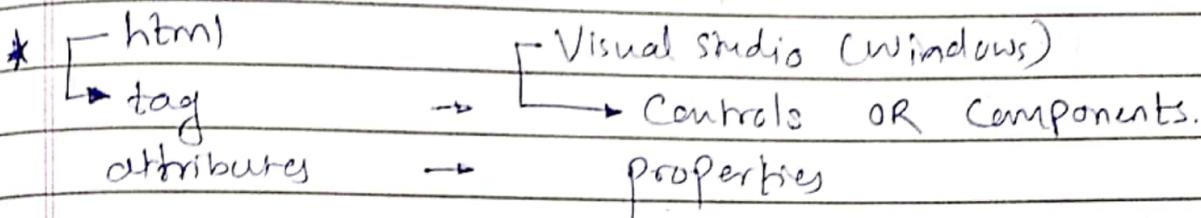


—• WINDOWS •—



Visual Studio ↴

Select → Windows Forms App (.NET FRAMEWORK)



ox

text
property → Some
Value

+ Base Class → Form Form

+ Derived class → Form1

+ .cs → coding page

.cs [Design] → Design Page

→ Add new item (Project → Right click → Add → Add new Item)

↳ Form (Windows Forms)

↳ Rename

↳ Add

→ Project flow =

1) program.cs

↳ Application.Run (`new [class] FormName`)
(class) (function)

→ file of Project (Form) :-

- .cs file
- .cs [Design] file
- Designer.cs file

Naming Conventions:-

Controls

Naming Convention

- 1) Label → lbl_(name in small letters) 'ex-lbl-id'
- 2) TextBox → txt_(name in small letters) 'ex-txt-name'
- 3) Button → btn_(name in small letters) 'btn_save'
- 4) CheckBox → chk_(name in small letters) 'chk-status'
- 5) RadioButton → ~~Rdb~~ 'Rdb-gender' Rdb_(name in small letters)
- 6) ComboBox → cmb_(name in small) 'cmb-city'
- 7) CheckedListBox → chk-lst_(name in small) 'chk-lst-subject'
- 8) ListBox → lst_(name in small) 'lst-state'
- 9) DateTimePicker → dt_(name in small) 'dt-dob'
- 10) MenuStrip → ms_(name in small)
- 11) Panel → pnl_(name in small)
- 12) RichTextBox → rtb-address' rtb_(name in small)
- 13) DataGridView → dgv_(name in small) 'dgv-employeedetails'
- 14) LinkLabel → lnk_(name in small)

Design the form with controls → then check it first

→ then set the properties (with naming convention)

PAGE No.	
DATE	/ /

Properties :-

Properties	Value	Data Type
Label → 1) Name	lbl-id	string (variable's Rules)
Text Box	Id	String
3) Visible	True / False	Boolean
4) Enabled	True / False	Boolean
5) Font (Font style)		
6) Fore Colour (Font colour)		
7) WordWrap	True / False	Boolean
8) Text Align	Right / Left / centre	
9) Check Box	True / False	Boolean
Form → 1) Start Position	Centre Screen	
2) Window State	Maximized	

Task ⇒ ①

then display

ID
Name
Status
Gender

[Save]

button

after click on save button

ID
Name
Status

MessageBox → console.WriteLine()

↳ used for showing messages.

PAGE No.	11
DATE	

Task ⇒ (2)

1 2 3 /

4 5 6 -

7 8 9 *

c o . =

—X—

→ For Display Name :-

lbl-city.Text = " --- ";

↳ using MessageBox

⇒ MessageBox.Show(lbl-city.Text);

→ Conversion :-

string str = rdb-m.Checked.ToString();

string str1 = Convert.ToString(rdm-m.Checked);

in MessageBox

↳ MessageBox.Show(rdb-m.Checked.ToString());

↳ (string type)

→ A string that represents the current object
Convert.ToString →

PAGE NO.	/ / /
DATE	/ / /

→ Combo Box:-

- lbl-city.Text = cmb-city.SelectedItem.ToString();
- lbl-city.Text = cmb-city.Text;
- lbl-city.Text = Convert.ToString(cmb-city.SelectedItem);

(*) → If - else condition :-

→ Count :-

int cityCount = cmb-city.Items.Count;

int SubjectCount = chx-1st-subject.Items.Count;

int SubjectCheckedCount = chx-1st-subject.CheckedItems.Count;

* CheckBox :- checklist Box :- (Items)

(Items) → Gets the collection of items in this CheckedListBox.

(CheckedItems)

↳ Collection of checked items in this CheckedListBox.

string subjectCheckedItem = chx-1st-subject.CheckedItems[0].ToString();

string subjectItem = chx-1st-subject.Items[0].ToString();

To String() → is used when it's confirmed that string value is going to come
Convert. To String() → is used when it's ^{not} confirmed that string value is going to come.

PAGE NO.	/ / /
DATE	/ / /

Task ⇒ ③

Take Label ↴

↳ lbl - Display Checked Items

= lbl - Display Checked Items. Text = _____

Steps → 1) Checked Items

2) Display in label

↳ ex Java, Python, Php

Task ⇒ ④

→ Listing Tag /
Collection Tag

Index

Items

1) Combo Box	}	0	satara
2) List Box		1	Kolhapur
3) Checked List Box		2	Mumbai
		3	Pune
		4	Nashik

→ List box:

// List box

int stateCount = lst_state.Items.Count;

label9.Text = lst_state.SelectedItem.ToString();

label9.Text = lst_state.Text; ■■■

→ DataTable :- (DataGridView)

```
* void funDetails ()  
{
```

```
    DataTable dt = new DataTable ();  
    dt.Columns.Add ("Id");  
    dt.Columns.Add ("Name");  
    dt.Rows.Add (1, "ABC");  
    dt.Rows.Add (2, "PQR");  
    dt.Rows.Add (3, "LMN");
```

```
dgv_Details.DataSource = dt;
```

```
}
```

(get, set)

Gets or sets the data source
that the

#

Controls

Properties.

Control Name

PropertyName

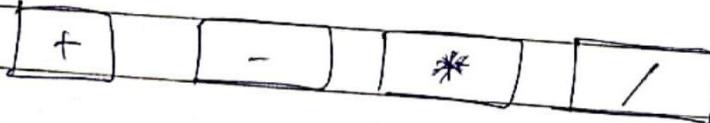
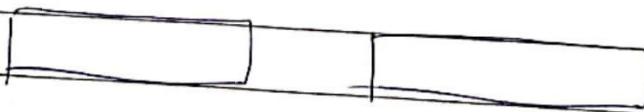
Value

1) Radio Button	checked	{True / False}
2) Check Box	checked, Item,	True / False
3) Checklist Box	SelectedIndex, Check, SelectedItems, Item Item	
4) ComboBox	SelectedIndex, Item, SelectedItems	
5) ListBox	SelectedItem, Item	

→ To display checked item in checklist box:-

(checkbox name). SetItemChecked (index, boolean value);

Task \Rightarrow ④



key value = ASCII value

PAGE NO.	/ /
DATE	/ /

Events :-

1) Key :-

• Key Down =

```
private void richTextBox_KeyDown (object sender, keyEventArgs e)
```

{

```
if (e.KeyCode == keys.Enter)
```

{

```
MessageBox.Show ("key Code richTextBox_KeyDown");
```

}

```
if (e.KeyData == keys.Enter)
```

{

```
MessageBox.Show ("key Data richTextBox - Key Down");
```

}

```
if (e.KeyValue == keys.ls)
```

{

```
MessageBox.Show ("key Value richTextBox - Key Down");
```

}

}

• Key UP =

• Key Press :-

```
private void richTextBox_KeyPress (object sender, KeyPressEventArgs e)
{
    if (e.KeyChar == (int) Keys.D2)
    {
        MessageBox.Show ("Hello");
    }
}
```

2) Click:-

- ① Single Click ② Double Click

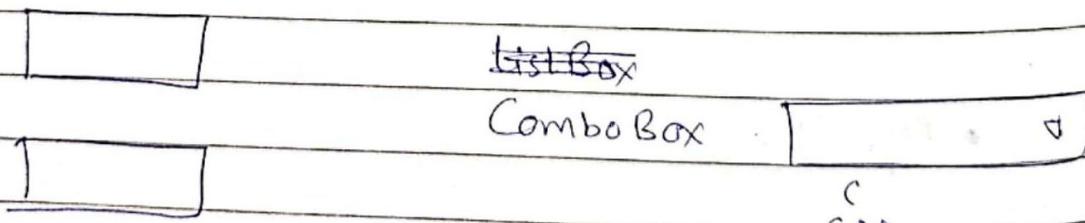
3) Form:-

① Load event (Behaviour)

② Form closed

Task \Rightarrow ⑤

Task \Rightarrow ⑥



ANS : lbl-ans

MessageBox (founder of C++, Java);

PAGE NO.	
DATE	/ /

4) Controls:-

(events)

1) TextBox → textBox - TextChanged

2) RichTextBox → richTextBox - Textchanged.

3) RadioButton → radioButton - CheckedChanged.

4) CheckBox → checkBox - CheckedChanged.

5) CheckedListBox → checkedListBox - SelectedIndexChanged.

6) ComboBox → comboBox - SelectedIndexChanged.

7) ListBox → listBox - SelectedIndexChanged.

8) Panel → panel - Paint

9) LinkLabel → linkLabel - LinkClicked

MDI & SDI :-

MDI - Multiple Document Interface

SDI - single Document Interface.

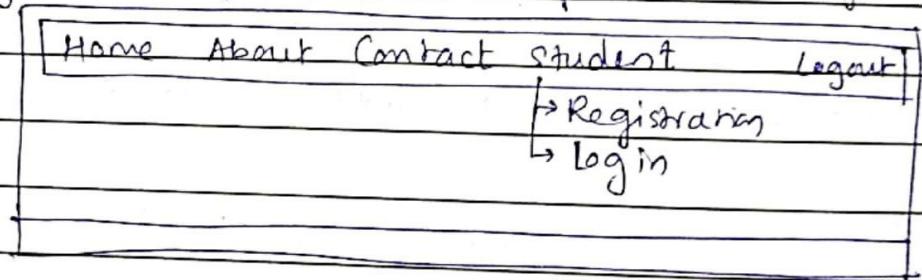
→ MDI :-

Display multiple child windows inside one window.

* Add Form to new project.

↳ Name it as frm-main

↳ Drag and drop \Rightarrow ~~MenuStrip~~ MenuStrip



→ SDI → It can manipulate single document at a time.

(Event of Registration submenu) (by Double click on it)

private void registrationToolStripMenuItem_Click

(object sender, EventArgs e)

Form2 objForm2 = new Form2();

objForm2.Show();

}

MDI → Visual Studio, Notepad etc,

SDI → Notepad.

PAGE NO.	/ /
DATE	/ /

(Event of Login subMenu by double click on it)

private void loginToolStripMenuItem_Click (object sender,
Enter Args e)

{
Form1 objform1 = new Form1();
objform1.Show();

MDI:

Frm_main → Properties. → IsMdiContainer → True

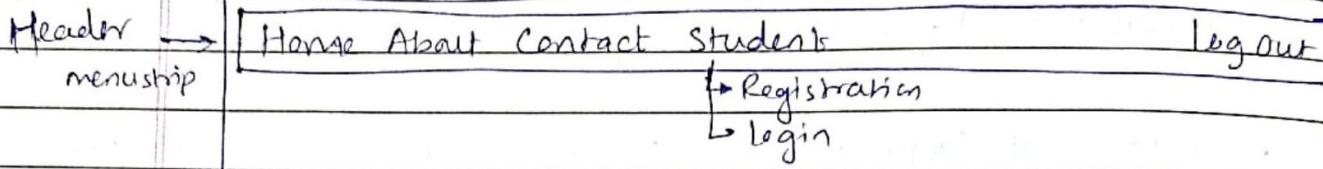
To ~~show~~ other forms into Frm_main

private void registrationToolStripMenuItem_Click (---)

{
Form2 objForm2 = new Form2();
objForm2.Show();

objForm2.MdiParent = this;

}



Content →

Footer →

→ Pages to be created:-

① Home, ② About, ③ Contact, Registration, Login,

④ Student

⑤ Main Page (frm.main)

↳ Menustrip

Grid View Project

tbl2

tbl - emp

→ Take - Data Grid View
- Text box 2

PAGE NO.	
DATE	/ /

Grid view:

id: <input type="text"/>	
Name: <input type="text"/>	
city: <input type="text"/> combobox ↴	
Save Clear	

* `dgr-emp.Columns[].Visible = False ;`
 (for hiding column)

Grid view → button → text

Use Column Text For Button Value → True.

→ Create event of DataGridView

```
private void dgv_emp_CellContentClick (object sender,
                                     DataGridViewCellEventArgs e)
{
    if (e.ColumnIndex == 0)
    {
        // edit operation
    }
    else if (e.ColumnIndex == 1)
    {
        // delete operation
    }
}
```

~~txt_iname).Text = Convert.ToString~~

rowindex column
[] []
Value)

~~txt_cname).Text = Convert.ToString (dgv_cnames.Rows [].Cells [].~~

PAGE NO.	
DATE	/ /

Create table in database → delete flag
→ Pass Hard coded '0' value

Insert

```
cmd.Parameters.AddWithValue("@Para-deleteFlag", 0);
```

Development

- UI design.
 - ↳ Controls
 - ↳ Naming conventions
 - ↳ assign value (text, list, labels)
- Database
- Operations.
 - ↳ CRUD operations.

Image :-

Panel → background image → set properties.

Project

(DataBase)

→ Driving School.

Company



staff



Students



Fee Collection



Daily Training

Company → Company-name.

Address

Contact

Email

Website.

Staff → staff-name, Address, city, area, contact, Aadharcard,
PAN card, Gender, joining date,
email, PasswordStudents → stud-name, Address, city, area, Pin, Aadharcard^(PK),
PAN card, DOB, Gender, Contact,
Joining date,
Vehicle Type.

receipt no, mode of payment, Amount, cheque no,

cheque date, bank, branch

Fee type, stud aadhar card.

PAGE NO.	
DATE	/ /

Fact c

Fee Collection →

(Admission, Training, Licence)

→ (cash, online, cheque)

(pay date), (Fee type), (Mode of Payment) Pay date

Vehicle types (Amount), (cheque no), (cheque Date),

(Bank) (Branch), (Receipt no)

(Aadhar card) (fk) (PK)

Daily Training →

Training date, Student, Daily kms,

Aadhar card

↓
training id

training date.

student daily km

stud aadhar card.

Business Rules ⇒

Admission fees → same

Training fees → vehicle 1 → 1000 rs

2 → 2000 rs

3 → 3000 rs

Master Daily driving km → 100 km (Total in 1 training)

licence fee → 800 rs.

Master category	Vehicle Type.	Fees.
Admission	A1	100
Training	T1	200
	T2	250
License		
License	Lmv	500
	Hmv	600

UI =

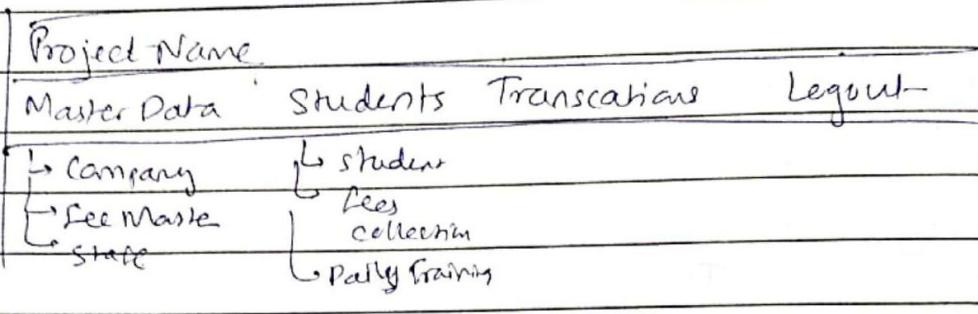
Project Name

menubar

First →

Log In	
login id	email
password	
<input checked="" type="checkbox"/> rem	

category Vehicle Type Fee amount



→ Naming Conventions

db

(tbl-staff)

staff_aadhar_no

db table name

Control naming convention

txt-staff_aadhar_no

textbox

radio button

staff_gender

OF OM

↑

rdb-f-staff_gender

PAGE NO.	
DATE	/ /

Master data

company

fee Master

staff

Students

stud

Admission

Payment details

Transactions

Daily Training

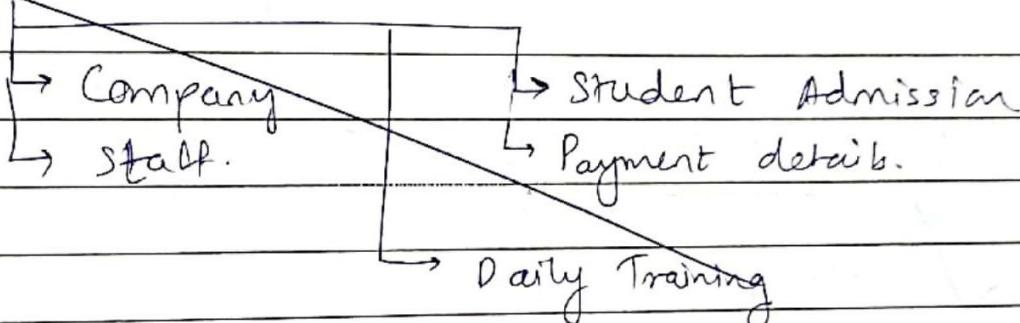
Logout

Main form

→ Login

Home page

→



Login Page ✓ show

Home page ✓ show

→ Master Data — ✓

→ Company ✓ form ✓ show
→ Staff ✓ form ✓ show
→ Fee Details

→ Student

→ Admission ✓ form ✓ show
→ Payment ✓ form ✓ show

→ Transaction

→ Daily Training. ✓ form ✓ show

check naming convention before coding

PAGE No.	/ /
DATE	/ /

Database

Master → Company ✓
Staff ✓
Fee Details ✓

✗
✗
✗

Student → Student ✓
Payment Details. ✓

Transaction → Daily Training ✓

Staff Details :-

✓ Name. txt
Address atb
Area txt
City cmb
Gender rdb
Contact txt
Aadhar card no txt
Pan Card no txt
Email txt
Password txt

clear button ✓

fungridFill() ✓

Save button ✓

Edit ✓

Update ✓

Delete ✓

Delete message box.

Company ~~Name~~ Details :-

Company name	txt	Save	Insert ✓
Address	rtb		Update ✓
Contact	txt	Clear	✓
Email	txt		
Website	txt		

Daily Training :-

Training ID	txt	Grid Fill ()	Clear button
Training Date	dt	Save button	Insert Update
Daily km	txt	Edit	
Student Aadhar card	txt	Update Delete	

Fee Details

id	txt
Category	txt
Vehicle type	cmb
Fee Amount	txt

Clear ✓
 Grid Fill ✓
 Save Insert
Update ✓
 Edit ✓
 Update Delete ✓

Design Details

Form → colour → Gradient background option. Lavender

Text → colour → Midnight Blue.
text → Candara

Heading → colour → Navy
Font → Lucida Sans.

Button → colour → Back → LightsteelBlue.

Font → MidNightBlue

	background	text font (H1)	colour (Navy)
student	✓	✓	✓
company	✓	✓	✓
payment	✓	✓	✓
fee	✓	✗	✓
Staff	✓	✓	✓
Training	✓	✓	✓

custom formats = dd/mm/yyyy
for Date time Picker.

check
this

DATE	/ /
------	-----

Student

Aadhar card

txt —

Name

txt —

Address

rtb —

Area

txt —

City

cmb —

Pin code

txt —

Gender

rdb —

DOB

dt —

Contact

txt —

Joining Date

dt —

Vehicle Name Type

cmb

Registration fee Yes No (radio button)

Clear

✓

Grid Fill

✓

Save Insert
 Update

✓

Edit

Delete

Payment Details

stud name 10

aadhar no

student name cmb
 stud.aadhar no txt
 Receipt no. txt
 Payment mode rdb
 Amount txt
 Chequeno txt.
 cheque date dt
 Bank cmb
 Branch txt
 Fee type cmb.

dt - paydate - cash

txt - amount - adm - cheque
dt - paydate - cheque
 txt - cheque no
 dt - date - cheque
 cmb - bank - cheque
 txt - branch - cheque

txt - amount - adm - online

dt - paydate - online

txt - id - online

cmb - bank - online

stud pincode