COMPLETING A TOE CHART

GOALS

- Plan an object-oriented Windows application
- Complete a Task, Object, Event Chart
- Follow the Windows standards regarding the layout and labeling of controls

PROCESSES USED BY A BUILDER AND A PROGRAMMER

A builder's process	A programmer's process
1. Meet with the client	1. Meet with the client
2. Plan the home (blueprint)	2. Plan the application (TOE)
3. Build the frame	3. Build the user interface
4. Complete the home	4. Code the application
5. Inspect the home and fix any problems	5. Test and debug the application
6. Assemble the documentation	6. Assemble the documentation (paperwork)

PLANNING AN OBJECT-ORIENTED APPLICATION

- as any builder will tell you, the most IMPORTANT aspect of a home is not its BEAUTY
- rather, it is how closely the home MATCHES the buyer's WANTS and NEEDS
- for an app to fulfill the user's wants and needs, it is essential to plan jointly with the user, to guarantee the success of an application is to actively involve the user in the planning phase

STEPS FOR PLANNING AN OO APPLICATION

1. Identify the tasks the application needs to perform
2. Identify the objects to which you will assign the tasks
3. Identify the events required to trigger an object into performing its assigned tasks
4. Draw a sketch of the user interface (Wireframing)

You can use a TOE (Task, object, event) chart to record the application's tasks, objects and events which are identified in the first three steps of the planning phase.

IDENTIFYING THE APPLICATION'S TASKS

- meet wit the client to determine her requirements
- let her bring some company forms/documents (receipts)
- viewing current forms and related documents will help you as the programmer gain a better understanding of the app you need to create
- you can also make use of the current form as a guide when designing the user interface

SAMPLE STORE RECEIPT

DIGITAL WORLD
SALES RECEIPT

Date:	3/22/2024
DVDs:	2
Blu-rays:	3
Total discs:	5
Total sales:	35.00

Sample of the store's current sales receipt

GUIDE QUESTIONS IN IDENTIFYING THE MAJOR TASKS

1. What information will the application need to display on the screen and/or print on the printer?
2. What information will the user needs to enter into the user interface to display and/or print the desired information?
3. What information will the application need to calculate to display and/or print the desired information?
4. How will the user end the application?
5. Will previous information need to be cleared from the screen before new information is entered?

SAMPLE TOE BASED ON THE SAMPLE SALES RECEIPT

TASK	OBJECT	EVENT
GET THE FOLLOWING SALES INFORMATION FROM THE USER: Current date Number of DVD's sold, number of Blu rays sold		
Calculate the total discs sold and total sales amount		
Display the following information: Current date, # of DVD's and Blu-rays sold, total discs sold, total sales amount		
Print the sales receipt		
End the application		
Clear screen for the next sale		

IDENTIFYING THE OBJECTS

- after completing the TASK Column of the TOE chart, you then assign each task to an object in the user interface.
- for this application, aside from the Windows form itself are the button, label, and text box controls.

JUST A REVIEW:

LABEL – used to display information that you do not want the user to change while the application is running (prefix-lbl:lblFname)

BUTTON – to perform an action immediately after the user clicks it (prefix-btn:btnClose)

TEXT BOX – to give the user an area in which to enter data (prefix-txt: txtFname,txtLastName

SAMPLE TOE BASED ON THE SAMPLE SALES RECEIPT

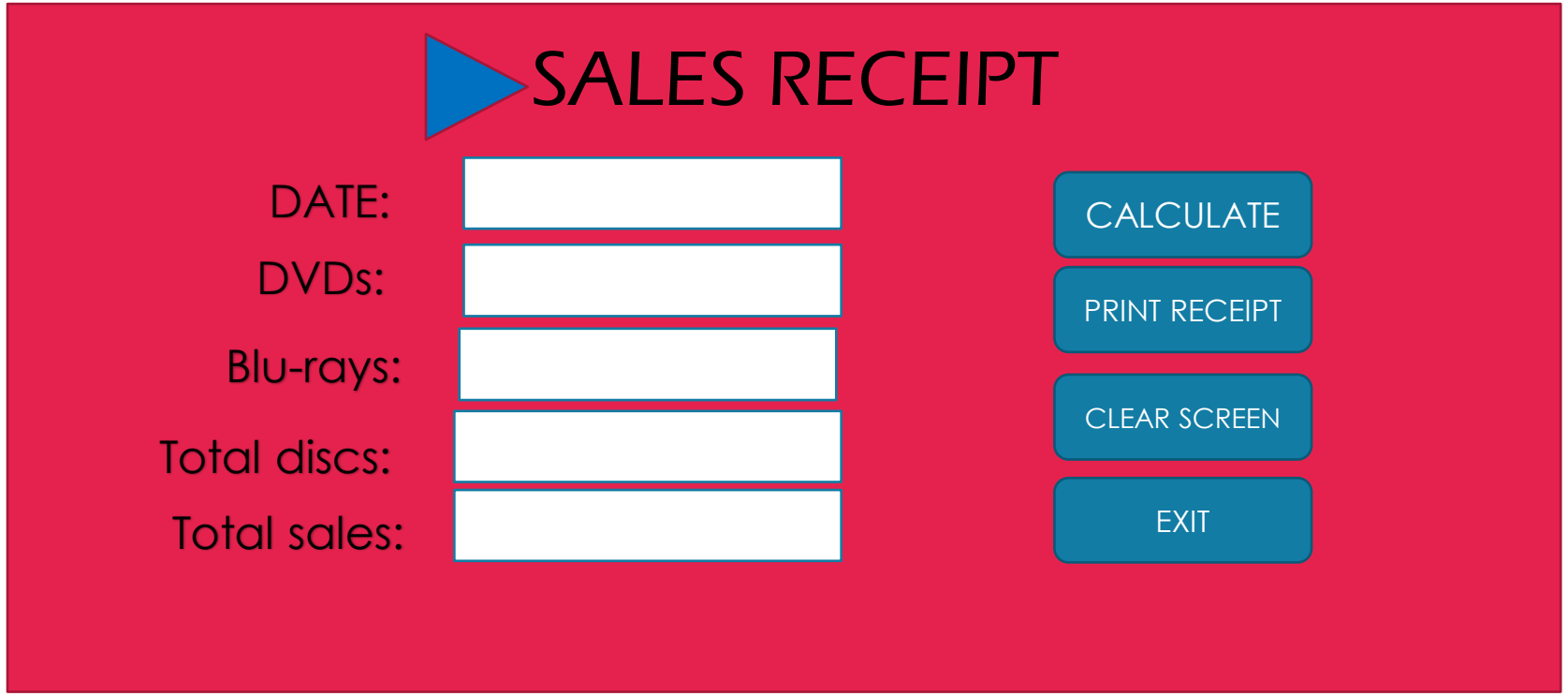
TASK	OBJECT	EVENT
GET THE FOLLWING SALES INFORMATION FROM THE USER: Current date Number of DVD's sold, number of Blu rays sold	txtDate txtDvd txtBlrays	none
Calculate the total discs sold and total sales amount	btnCalc	click
Display the following information: Current date, # of DVD's and Blu-rays sold, total discs sold, total sales amount	lblDVD,lblBR	none
Print the sales receipt	btnPrint	click
End the application	btnClose	click
Clear screen for the next sale	btnClear	Click

VERTICAL VS HORIZONTAL ARRANGEMENT

- In Western countries, the UI should be organized so that the information flows either VERTICALLY or HORIZONTALLY, with the most important information always located in the upper-left corner of the interface.
- In a VERTICAL ARRANGEMENT, the information flows from TOP to BOTTOM: the essential information is located in the first column of the interface, while secondary information is placed in subsequent columns.
- In a HORIZONTAL ARRANGEMENT, the information flows from left to right : the essential information is placed in the first row of the interface, with secondary information placed in subsequent rows.

DRAWING A SKETCH OF THE USER INTERFACE

vertical arrangement of the Digital Store Application



DRAWING A SKETCH OF THE USER INTERFACE

horizontal arrangement of the Digital Store Application