



# TIC TAC TOE

FINAL YEAR PROJECT  
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# Language used

- JAVA Programming

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# INTRODUCTION

- A simple two player game that if played optimally by both players will always result in a tie.
- Traditionally played by being drawn on paper, and it can be played on a computer or on a variety of media.
- In ancient it was called “Terni lapilli” , which means “three pebbles at a time”.
- Played on a grid of 3 by 3 squares and it is mainly enjoyed by children.

# PREDEFINED METHODS

## setLayout() method

- The setLayout() method allows you to set the layout of the container, often a JPanel, to say FlowLayout, BorderLayout, GridLayout, null layout, or whatever layout desired.
- The layout manager helps lay out the components held by this container.

## setBounds() method

- The setBounds() method needs four arguments.
- The first two arguments are x and y coordinates of the top-left corner of the component, the third argument is the width of the component and the fourth argument is the height of the component.

## setBackground ()

- In general, to set the JFrame or JFrame's components background color, we can call the setBackground method.

## setVisible()

- if you set it true ,it means you want that thing to be visible in your screen . And if you set it to false , you can't see anything in your screen.

## **setEditable()**

- if you set it true , it means you give a permission to your user to edit that thing (textbox , text field etc.) When it is on your screen. And if you set it False it means , you don't want to give permission to the user to edit that thing

## **setSize()**

- The setSize() method of Java Vector class is used to set the size of a vector. If the new size is greater than the current size, null items are added to the end of the vector. Otherwise, all components at index newSize and greater are discarded.



## **SetForeground ()**

- In general, to set the text color of JFrame or JFrame's components, we can call the SetForeground method.

## **getText()**

- In general, to get the text dynamically while program is executing we use getText method in JFrame's components.

## **setEnabled ()**

- The code `setEnabled(false)`, disables this TextField. It is not selectable and the user can not copy data from it and the user cannot change the TextField's contents directly.

## **Setlocationmethod()**

- To set the location of JFrame in actual screen we use `set location ()` method.

## **add()**

- To add the components in JFrame we use add() method.

## **actionPerformed()**

- The actionPerformed() method is invoked automatically whenever you click on the registered component.

## **setDefaultCloseOperation()**

- It is used to specify one of several options for the close button.
- Use one of the following constants to specify your choice.
- `JFrame.EXIT_ON_CLOSE` — Exit the application.
- `JFrame.HIDE_ON_CLOSE` — Hide the frame, but keep the application running.
- `JFrame.DISPOSE_ON_CLOSE` — Dispose of the frame object, but keep the application running.
- `JFrame.DO_NOTHING_ON_CLOSE` — Ignore the click.

# PREDEFINED CLASSES

## JavaJTextField

- The java object of a JTextField class is a text component that allows the editing of a single line text.
- It inherits JTextComponent class.

## Java JButton

- The JButton class is used to create a button that has platform independent implementation.
- The application result in some action when the button is pushed.
- It inherits AbstractButton class.

## JavaJLabel

- The object of JLabel class is a component for placing text in a container.
- It is used to display single line of read only text.
- The text can be changed by an application but a user cannot edit it directly.

# INTERFACE USED

## ActionListener Interface

- The Java ActionListener is notified whenever you click on the button or menu item. It is notified against ActionEvent.
- The ActionListener interface is found in java.awt.event package.
- It has only one method.

# PACKAGES USED

## **Javax.swing.\***

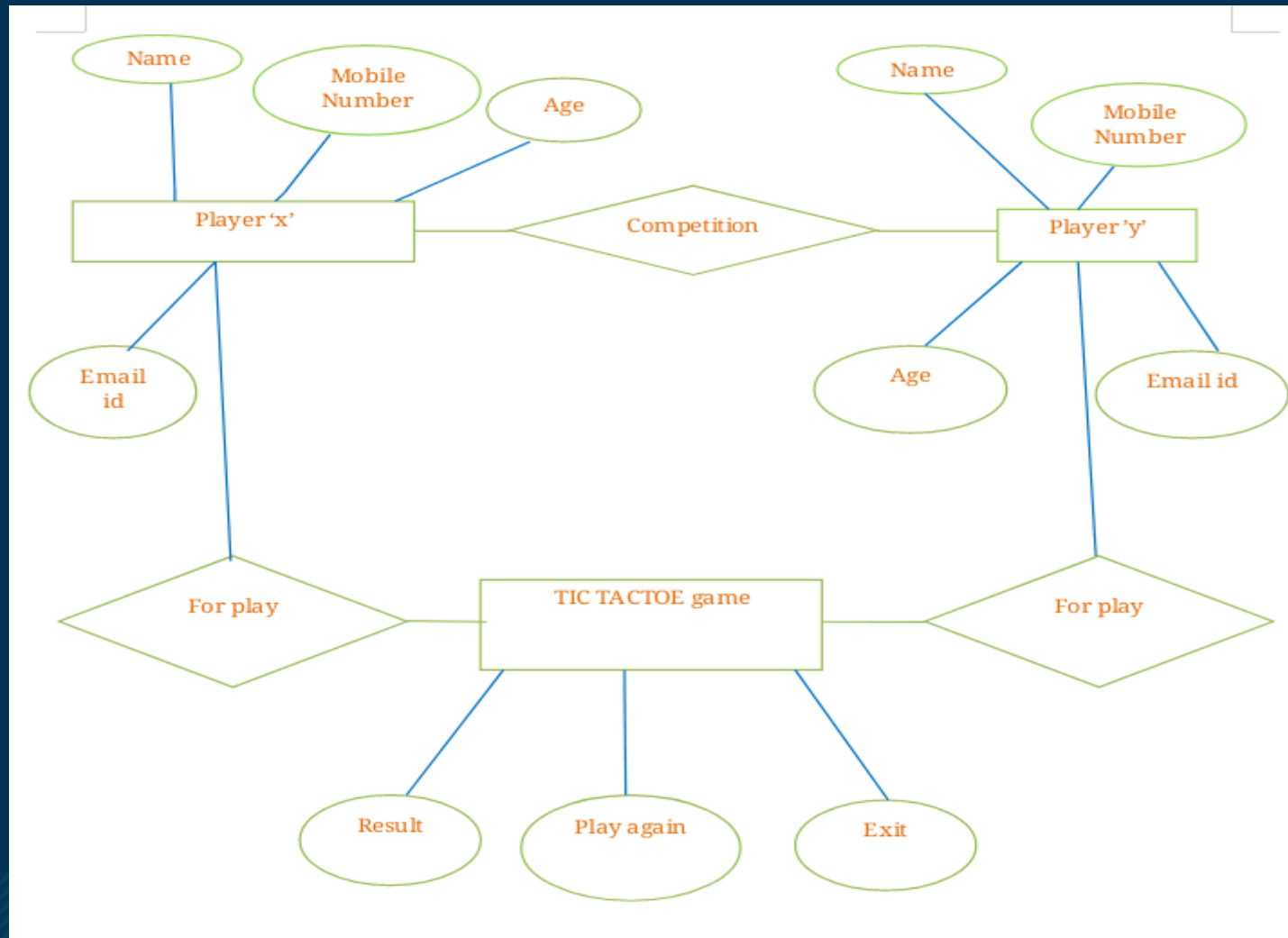
- Provides a set of "lightweight" (all-Java language) components that, to the maximum degree possible, work the same on all platforms.

## **Java.awt.\***

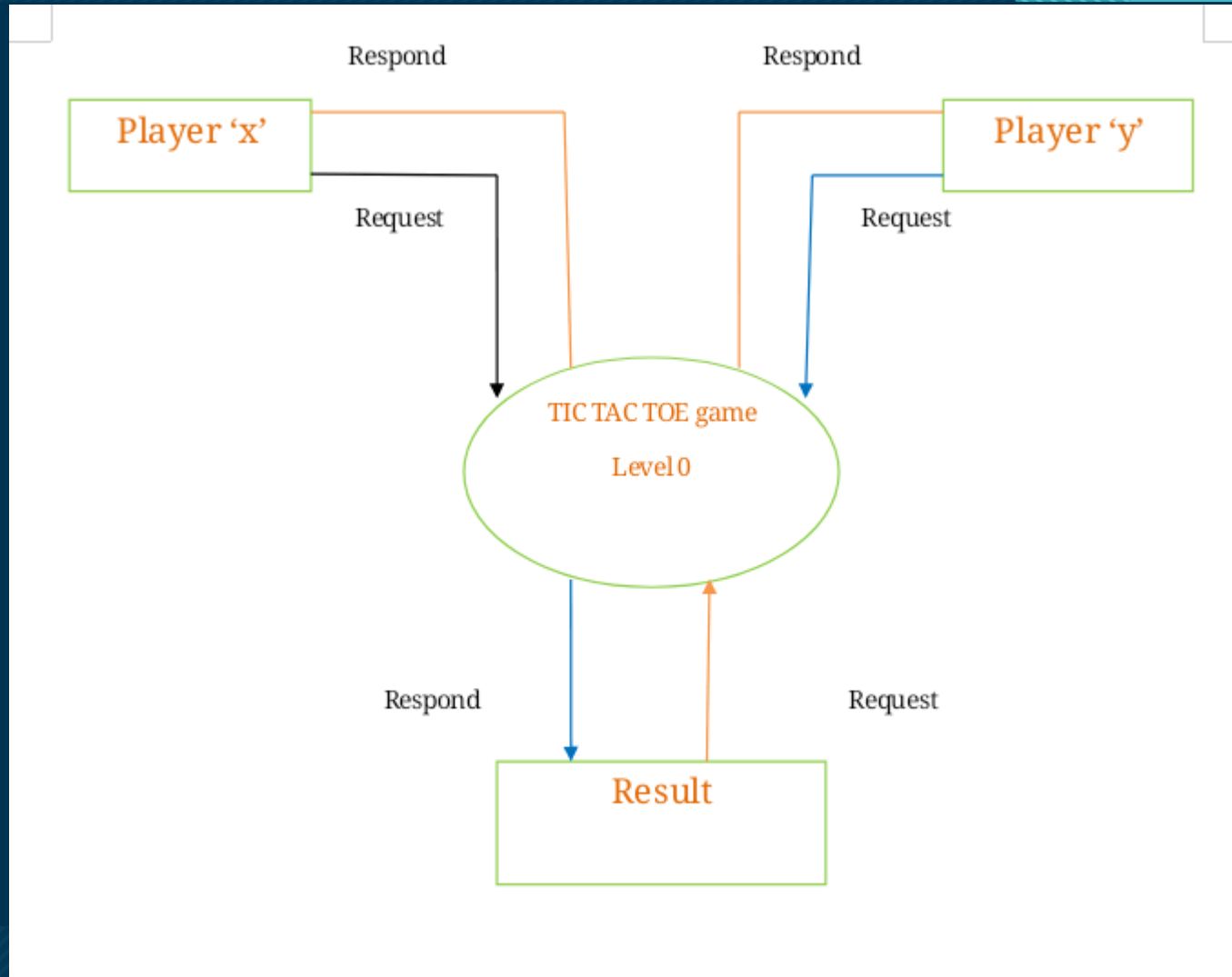
- The java.awt package provides classes for AWT api such as TextField, Label, TextArea, RadioButton, CheckBox, Choice, List etc.



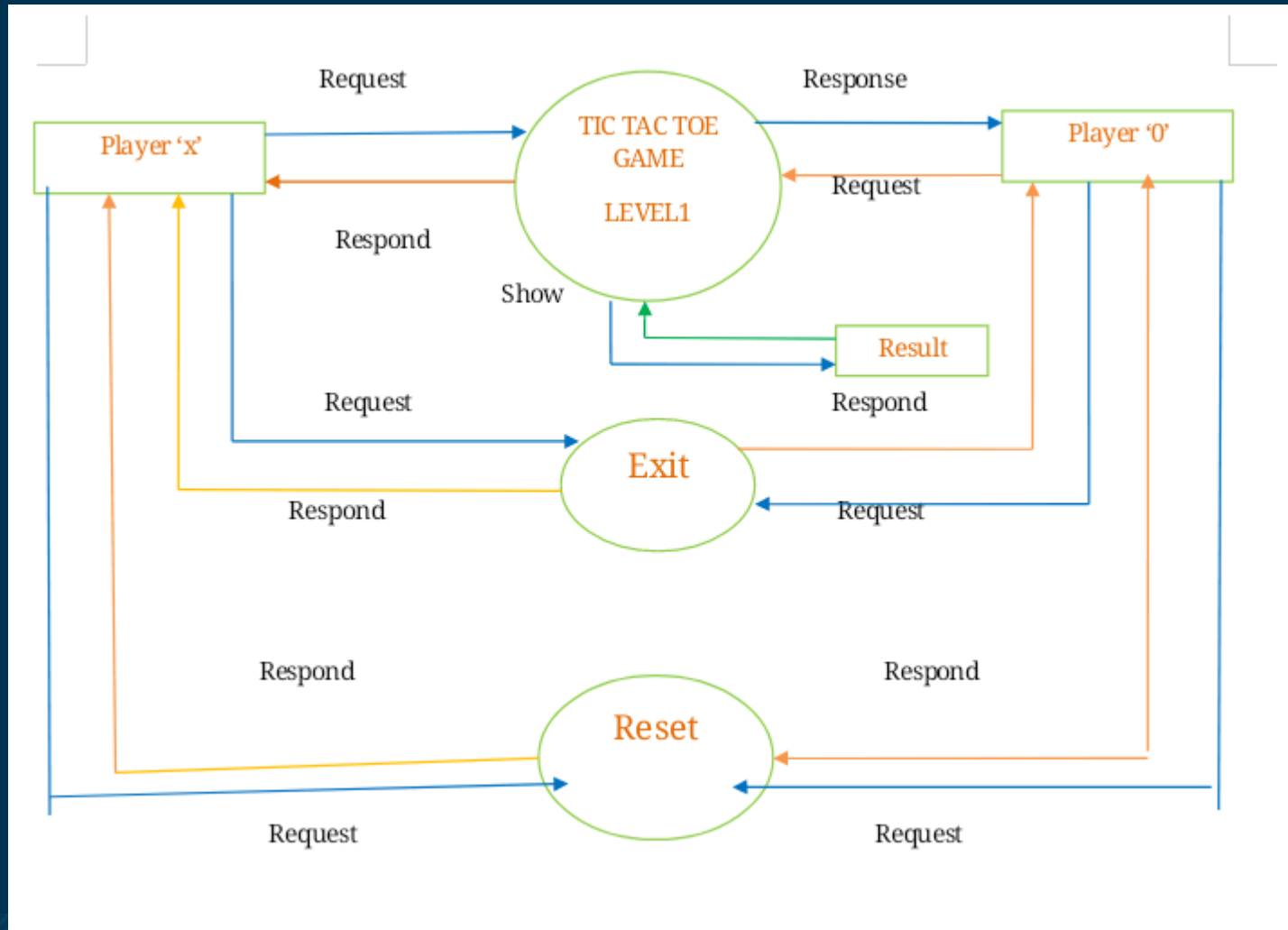
# E-R DIAGRAM




# DFD - Level 0



# DFD - Level 1



# INITIAL STAGE

 TTT GAME

TIC TAC TOE GAME


Player X :

Player O :

AGAIN

# DATA INSERTION

 TTT GAME

TIC TAC TOE GAME


Player X :

SURUCHI

Player O :

SHREYA

AGAIN

# DECLARATION

 TTT GAME

TIC TAC TOE GAME

O	X	O
	X	
	X	

Player X :

SURUCHI

Player O :

SHREYA

AGAIN

Player 1 won

# DRAW

 TTT GAME

TIC TAC TOE GAME

X	O	O
O	X	X
X	X	O

Player X :

SURUCHI

Player O :

SHREYA

AGAIN

Game Draw

# RESTART

TTT GAME

## TIC TAC TOE GAME


Player X :

Player O :



# LIMITATIONS

- The player who succeeds in placing three of their mark in a diagonal , horizontal and vertical row wins the game.
- It is a solved game with a forced draw assuming best play from both players.

# REFERENCES

GOOGLE  
YOU TUBE  
GREEK OF GREEKS



**THANK YOU**