Worksheet3: Simple game creation

You will implement a simple game in which the player earns points when they achieve an image (Trojan) that moves on the screen.
This game uses an image of the Trojan that moves at random locations and when the player touches it they earn one point and a sound is heard. The game shows the score on the screen and has a button that resets the score and restarts the game.

1. Select start new project from the menu and give the name **trojan_game**

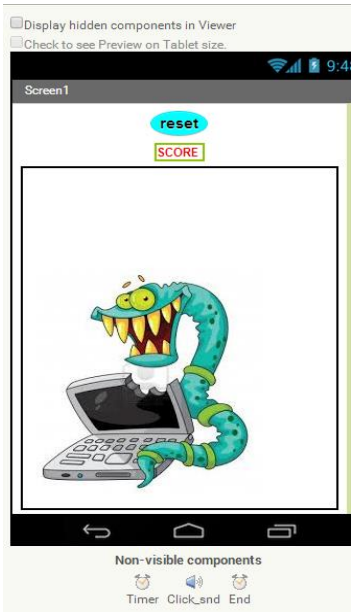
2. Selection of components (**DESIGNER**).

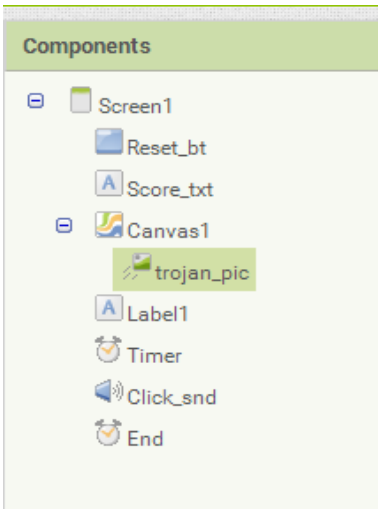
COMPONENT	PALET	NAME	AIM
Canvas	Drawing and animation	Canvas1	Game' s area
ImageSprite	Drawing and animation	Trojan_pic	Trojan's image
Label	User Interface	Score_txt	Game's score
Sound	Media	Click_snd	Sound when the trojan is stroke
Button	User Interface	Reset_bt	Button for the score' s zero
Clock	Sensors	Timer	Time for the Trojan's movement
Clock	Sensors	End	Time that stops the move of Trojan

The properties of the Components

Component	Properties
Canvas1	Baxkground Color: White Height:350 Width:300
Trojan_pic	Picture: Trojan2.jpg Width:300 pixels Height:350 pixels
Scote_txt	Text: SCORE, FontBold, f=FontSize:14, TextColor: Red
Click_snd	Source: beep.wav
Rest_bt	Shape: Oval Text: Reset
Timer	TimerAlwaysFire: disabled TimerInterval: 1000
End	TimerAlwaysFire: disabled TimerInterval: 20000

The picture should be like the following:



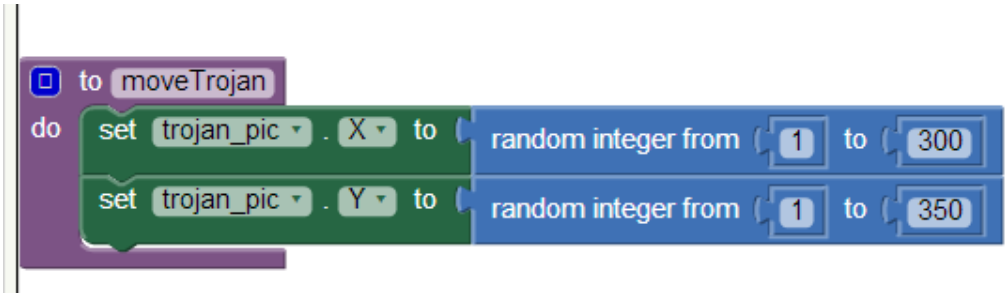


1. Commands **(BLOCK EDITOR)**

A. Movement of the Trojan in a random location on the screen.

- Initially set a procedure, which is a set of commands that are performed as a single command. Drag the **to procedure** and point to the work area. Change the name of the procedure into **MoveTrojan**.

- Add two commands to the block process **do** that move the Trojan. From the palette, drag and drop Trojan_pic the Trojan_pic set. X and set Trojan_pic. Y,which determine its coordinates, and from the Math palette the **random Integer from.. to ..**



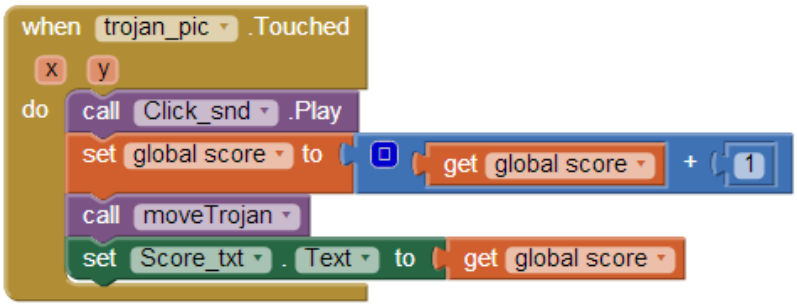
- For the movement of the Trojan the Timer component from the palette timer will be used. Drag the **When Timer.Timer** and create the following section block.

B. To update the scores a variable and a procedure that displays the score will be used.

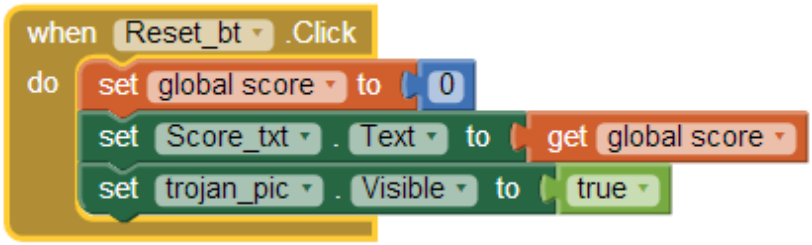
From the **Built-in** palette select **variables**. Drag **initialize global name to** and place it in the work area. Select the **score** variable (in name), and then add **0** from **Math**.

C. When you touch the Trojan:

- A sound should be heard
- The Trojan should move
- The score increases by 1 point
- The score is displayed.



D. When you press the Reset button the score be zeroed.



E. When the time is over the image of the Trojan has to disappear.