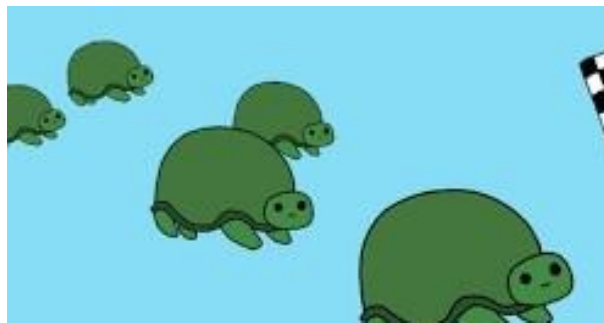


INT 213
PYTHON PROGRAMMING

PROJECT REPORT
PROJECT TITLE: TURTLE RACE



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ABSTRACT OF PROJECT

Project title: turtle race

As the name indicates that the race is between different turtles. The main aim of the game is “the race is conducted between different turtles and we have to declare the winner” there are turtles ready to race on the racing tracks and when we tap on the start button the race is started and the turtle which reaches the end of track declares as winner.

By making the turtle game we will learn how to:

1. Use random numbers in python.
2. Draw lines in different colors with python turtle.

INTRODUCTION

In this project we are going to create a game (turtle race) using python. The name “turtle race” itself indicates that the race is in between turtles. We need racing track and turtles for this race, we use GUI to create and use loops for racing track.

To create this project we have a separate topic named turtle, we have to import the module named “TURTLE”. In this module we have several commands which is to be used in this project.

Basic needs of project

1. Racing tracks .
2. Turtles of different colours.
3. Start and stop

MODULES USED FOR THIS PROJECT

Modules refer to a file containing python statements and definitions. A file containing python code, for e.g: turtle_race.py is called a module and its module name would be turtle_race.

The only module used in this project is “TURTLE”. Where it consists of several functions such as `turtle()`, `forward()`, `backward()`, `right()`, `left()`. The above functions are used for different uses in the project.

`Turtle()`: It is used for Creates and returns a new turtle object.

`Backward()`: It is used for moves the turtle backward by the specified amount.

`Forward()`: It is used for moves the turtle forward by the specified amount.

`Right()`: it is used for turns the turtle clockwise.

`Left()`: it is used for turn the turtle anti-clock wise.

LIBRARIES USED FOR THIS PROJECT

Library	Used for
1. RANDOM	<p>For example <code>random.randint()</code>: Returns a random integer between the specified integers.</p> <p>We use this library for different or random speed for different turtles.</p>
2. TURTLE	<p>There are so many functions available in this module such as <code>Turtle ()</code>, <code>forward ()</code>, <code>backward ()</code>, <code>Right ()</code>, <code>left ()</code> etc.,</p> <p>By using this module we can draw racing tracks and motion to that turtle for example, moving front, back, spin...</p>
3. TIME	<p>time which allows us to handle various operations regarding time.</p> <p>For example, by using random function we get different times For different turtles.</p>

Functional requirements

FUNCTIONAL REQUIREMENT1:

Signup:

If user wants to play the game they should have their credentials to get that credentials user needs to sign up.

DESCRIPTION: user should enter their all details.

INPUT: name in characters, mobile number in number, and all other entries should be in characters.

PROCESSING: storing the values in the database that are entered by the user.

OUTPUT: confirmation message "registered successfully".

FUNCTIONAL REQUIREMENT2:

Login:

The user who has account should use their credentials to login.

DESCRIPTION: user should enter his/her credentials.

INPUT: name and password in characters.

PROCESSING: the entered details should check with the details that are in database.

OUTPUT: confirmation message "login successfully".

FUNCTIONAL REQUIREMENT3:

GAME:

The user plays the game by selecting the their turtle.

DESCRIPTION: user should select their turtle .

INPUT: enter the turtle number in character.

PROCESSING: should start the game.

OUTPUT: if your turtle wins then the message will be shown as “congratulation you’re the winner”. Else “better luck next time”.

Manual Test Cases

1 Unit Testing

The system is composed of a number of units that will be tested independently. The administrator should be able to add products, view order list and general system maintenance. The users should be able to browse the various products and place orders.

2 Interface Testing

This section lists the functional requirements used for creating the test-case table, the test cases that were used to verify the interface table, and the results for the test-cases table.

TEST CASE

Test Case :1 Designed by : chandu and sai Executed by : chandu and sai Short Description : Test the login of Turtle race	Test case name : Testing logins Subsystem : username id and password Design date : 14/10/2019 Execution date : 14/10/2019
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Pre conditions:

The user has a user_id and password - the user can access his/her data by enter the valid email and password. The system displays the homepage of the website.

step	Action	Expected System Response	Pass/Fail	Comment
1.	Click on 'Login' in homepage	The system displays the login page and asks to enter the user_id and password.	Pass	
2.	Enter a valid user_name and a valid password		Pass	
3.	Click on 'Login'	The system displays the homepage of the game	Pass	
4.	Check post condition 1			
5.	Repeat steps 1,2,3 using invalid user_id and valid password	The system displays the message 'sorry, we don't recognize this user_id and password combination.'	Pass	
6.	Check post condition 2			
7.	Repeat steps 1,2,3 using valid user_id and invalid password	The system displays the message 'sorry, we don't recognize this user_id and password combination.'	Pass	
8.	Check post condition 3			
9.	Repeat steps 1,2,3 using valid user_id and invalid password	The system displays the message 'sorry, we don't recognize this user_id and password combination.'	Pass	

Post Conditions:

The successful login results in displaying the homepage with the valid email and password

REFERENCES

We take the help of [geeks for geeks](#) to read a brief about GUI.
And some youtube channels for turtle graphics.