

MINI PROJECT – I
(2019-2020)

TURTLE RACE GAME

MID TERM REPORT



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ACKNOWLEDGEMENT

I have taken efforts in this project. However, it would not have been possible without the kind support and help of many individuals. On the completion of this project I would like to extend my sincere thanks to all of them.

I am highly indebted to this project guide **DR. Manoj Varshnay, Technical Trainer** for their guidance and constant supervision as well as for providing necessary information regarding the project.

I wish to extend my sincere gratitude to **Prof. Anand Singh Jalal, Head of Department of Computer Engineering and Applications** and faculty of CEA Department of **GLA University** for their guidance, encouragement and give this opportunity and valuable suggestion which prove extremely useful and helpful in completion of this synopsis.

I would also like to thank all those who directly or indirectly supported or helped me. I would like to express my gratitude towards my parents and member of my college for their kind cooperation and encouragement which helped me in completion of this project.

All of them have willingly helped me out with their abilities.

PROBLEM STATEMENT

Turtle graphics is a popular way for introducing programming to kids. It was part of the original Logo programming language developed by Wally Feurzig and Seymour Papert in 1966.

Imagine a robotic turtle starting at (0, 0) in the x-y plane. After an `import turtle`, give it the command `turtle.forward(15)`, and it moves (on-screen!) 15 pixels in the direction it is facing, drawing a line as it moves. Give it the command `turtle.right(25)`, and it rotates in-place 25 degrees clockwise.

By combining together these and similar commands, intricate shapes and pictures can easily be drawn. The turtle module is an extended reimplementation of the same-named module from the Python standard distribution up to version Python 2.5.

The turtle module provides turtle graphics primitives, in both object-oriented and procedure-oriented ways. Because it uses tkinter for the underlying graphics, it needs a version of Python installed with Tk support.

REASON FOR SELECTING THIS PROJECT

The main reason is to select this project because I am learning the python programming and I feel that it is the best and easily understandable language for me. The codes are so small and easy that anyone can understand.

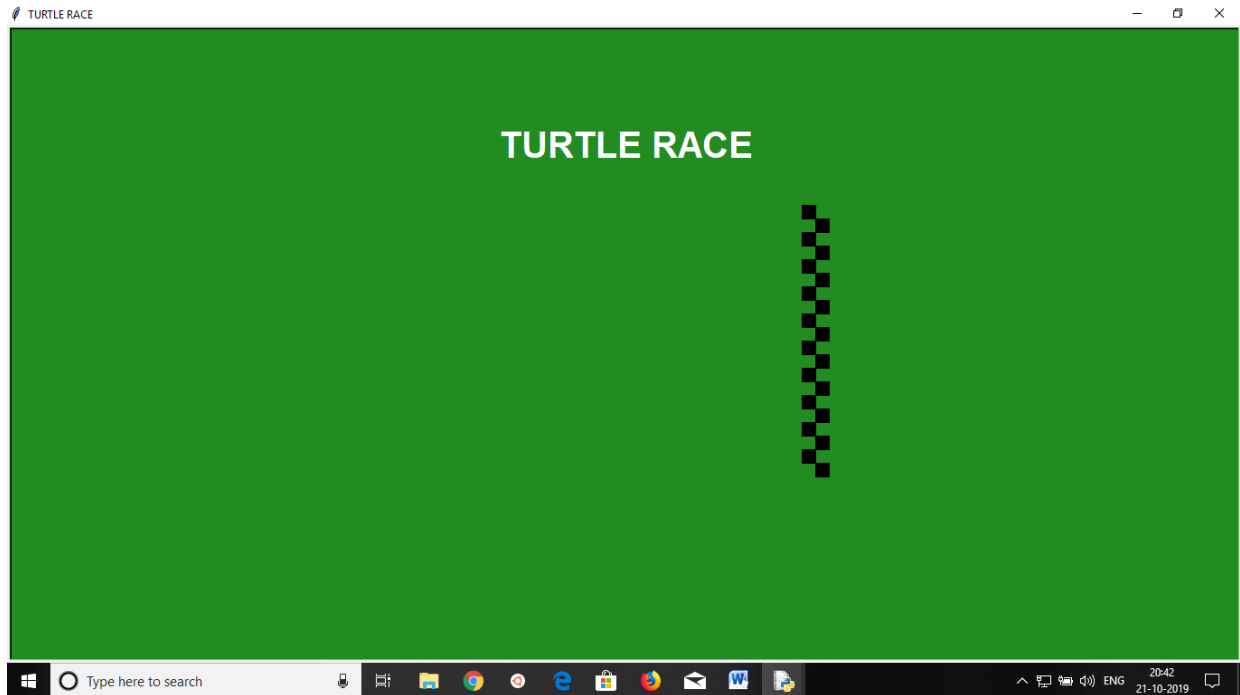
My second reason for selecting this is because of my attraction toward games. This is why I choose this.

Python is one of those rare languages which can claim to be both *simple* and *powerful*.

OBJECTIVE

This Turtle Game is helpful in entertaining kids along with learning python. If you are a good coder and spend lot of time in coding this game helps you to reduce your stress.

This is not so difficult to play such that you are addicted to it just like other games we play to complete mission and to achieve some position or rank in the game.



```
turtleidle.py - C:\Users\saket\Videos\turtleidle.py (3.7.4)
File Edit Format Run Options Window Help

from turtle import *
from random import randint

# ADDING BACKGROUD COLOUR.
import turtle
wn = turtle.Screen()
wn.title("TURTLE RACE")
turtle.bcolor("forestgreen")
turtle.color("white")
turtle.speed(0)
turtle.penup()
turtle.setpos(-140, 200)
turtle.write("TURTLE RACE", font=("Arial",30,"bold"))
turtle.penup()

#FINISH LINE
stamp_size = 20
square_size = 15
finish_line = 200

turtle.color("black")
turtle.shape("square")
turtle.shapesize(square_size / stamp_size)
turtle.penup()
for i in range(10):
    turtle.setpos(finish_line, (150 - (i * square_size * 2)))
    turtle.stamp()
for j in range(10):
    turtle.setpos(finish_line + square_size, ((150 - square_size) - (j * square_size * 2)))
    turtle.stamp()

turtle.hideturtle()
```

FUTURE SCOPE:

In future if anyone want to add more features in the game such as giving result which turtle finishes 1st one can modify this into the game. Also we can make some more small games such as snake and hangman etc using python. After that we can collaborate them together in a single platform such that user have option for selecting games which he/she want to play.

LITERATURE SURVEY:

METHODOLOGY:

- This game will never become outdated. Human beings will always crave for games specially for new learner in python language. The most significant disruption in this game is that it uses a platform to run and display the code and the game on screen. This project introduces for loops through a fun turtle race game. Loops are used to draw the race track and to make the turtles move a random number of steps each turn. A group of children can each pick a turtle, the one that gets the furthest is the winner.

This game includes the concept of these three basic concepts:

- For loops;
- Random;
- Python turtle graphics

We can increase challenges in the game by following these steps:-

- More lines - changing the number of times a loop repeats;
- Race times - adding more turtles, includes adding code inside a loop;
- Do a twirl - make turtles spin round at the start by writing new for loops;
- Dashed lines - change solid lines into dashed lines, requires a nested loop.

Development:**Software:**

Python 3 idle and tkinter packages.

Hardware:

Internet connected computer

Running**Software:**

Python 3 idle

COCLUSION:

Thus this TURTLE RACING GAME project gives full entertainment for the users who want to get some time pass in their busy schedule.

CERTIFICATION

This is to certify that this project report entitled run an “Turtle Race Game” submitted to GLA University, is a bonafide record of work done by Saket Shubham under my supervision from September 17 to Novemeber 30.

**Dr. Manoj Varshney
(Asst. professor)
GLA University**