**Assignment -3**

**Python Programming**

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| Assignment Date | 30 September 2022 |
| Student Name | Abithaa. M |
| Student Roll Number | 211419106007 |
| Maximum Marks | 2 Marks |

**Question:**

1. **Write python code for blinking LED and Traffic lights for Raspberry pi. Only python code is enough, no need to execute in raspberry pi. Note: you are allowed to use web search and complete the assignment**

**Code:**

#Traffic light for raspberry pi simulating in python with GUI

|  |  |
| --- | --- |
|  |  |
|  |  | import turtle |
|  |  | import time |
|  |  | wn= turtle.getscreen() |
|  |  | wn.title("Stoplight By Abithaa") |
|  |  | wn.bgcolor("black") |
|  |  |  |
|  |  | #gui interfrace |
|  |  | pen= turtle.Turtle() |
|  |  | pen.color("Yellow") |
|  |  | pen.width(4) |
|  |  | pen.hideturtle() |
|  |  | pen.penup() |
|  |  | pen.goto(-30, 60) |
|  |  | pen.pendown() |
|  |  | pen.fd(60) |
|  |  | pen.rt(90) |
|  |  | pen.fd(120) |
|  |  | pen.rt(90) |
|  |  | pen.fd(60) |
|  |  | pen.rt(90) |
|  |  | pen.fd(120) |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  | #red light |
|  |  | red\_light =turtle.Turtle() |
|  |  | red\_light.shape("circle") |
|  |  | red\_light.color("grey") |
|  |  | red\_light.penup() |
|  |  | red\_light.goto(0, 40) |
|  |  |  |
|  |  | #Yellow light |
|  |  | yellow\_light =turtle.Turtle() |
|  |  | yellow\_light.shape("circle") |
|  |  | yellow\_light.color("grey") |
|  |  | yellow\_light.penup() |
|  |  | yellow\_light.goto(0, 0) |
|  |  |  |
|  |  | #Green light |
|  |  | green\_light =turtle.Turtle() |
|  |  | green\_light.shape("circle") |
|  |  |  |
|  |  | green\_light.color("grey") |
|  |  | green\_light.penup() |
|  |  | green\_light.goto(0, -40) |
|  |  |  |
|  |  |  |
|  |  | while True: |
|  |  | yellow\_light.color("grey") |
|  |  | red\_light.color("red") |
|  |  | print("Red light Blinked - Now vehicle Stop behind zebra cross..") |
|  |  | print("Blink!!") |
|  |  | time.sleep(2) |
|  |  | print("Blink!!") |
|  |  |  |
|  |  | red\_light.color("grey") |
|  |  | green\_light.color("green") |
|  |  | print("Green light on- Now vehicle can go..") |
|  |  | print("Blink!!") |
|  |  | time.sleep(3) |
|  |  | print("Blink!!") |
|  |  |  |
|  |  | green\_light.color("grey") |
|  |  | yellow\_light.color("yellow") |
|  |  | print("Yellow light Blinked- Now vehicle Ready to go..") |
|  |  | print("Blink!!") |
|  |  | time.sleep(1) |
|  |  | print("Blink!!") |
|  |  |  |
|  |  |  |
|  |  | wn.mainloop()  Output Screenshot: |