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Question-1:

Write a python code for blinking LED with Raspberry pi

#! /usr/bin/env python

import RPi.GPIO as GPIO # RPi.GPIO can be referred as GPIO from now

import time

ledPin = 22 # pin22

def setup ():

GPIO.setmode(GPIO.BOARD) # GPIO Numbering of Pins

GPIO.setup(ledPin, GPIO.OUT) # Set ledPin as output

GPIO.output(ledPin, GPIO.LOW) # Set ledPin to LOW to turn Off the LED def loop():

while True:

print 'LED on' GPIO.output(ledPin, GPIO.HIGH) # LED On

time.sleep(1.0 ) # wait 1 sec

print 'LED off'

GPIO.output(ledPin, GPIO.LOW) # LED Off

time.sleep(1.0) # wait 1 sec

def endprogram():

GPIO.output(ledPin, GPIO.LOW) # LED Off

GPIO.cleanup() # Release resources

if\_name\_=='\_main\_': # Program starts from here

setup()

try:

loop()

except KeyboardInterrupt: # When 'Ctrl+C' is pressed, the destroy()

will be executed.

endprogram()

Question-2:

Write a python code for Traffic lights with Raspberry pi

#!/usr/bin/python3.4

import RPi.GPIO as GPIO

import time

GPIO.setmode(GPIO.BCM)

GPIO.setwarnings(False)

GPIO.setup(4, GPIO.IN, pull\_up\_down = GPIO.PUD\_DOWN) # Button

GPIO.setup(17, GPIO.OUT, initial = GPIO.HIGH) # RED

GPIO.setup(27, GPIO.OUT, initial = GPIO.HIGH) # YELLOW

GPIO.setup(18, GPIO.OUT, initial = GPIO.HIGH) # GREEN

GPIO.setup(22, GPIO.OUT, initial = GPIO.LOW) # Buzzer

x = 1 # Variable to control traffic light system

try:

while True:

if(GPIO.input(4) == True):

while(x == 1):

GPIO.output(17, GPIO.LOW)

GPIO.output(22, GPIO.HIGH)

time.sleep(2)

GPIO.output(22, GPIO.LOW)

GPIO.output(27, GPIO.LOW)

time.sleep(3)

GPIO.output(17, GPIO.HIGH)

GPIO.output(27,GPIO.HIGH)

GPIO.output(18, GPIO.LOW)

time.sleep(5)

GPIO.output(18, GPIO.HIGH)

time.sleep(2)

except Exception as ex:

print(“error occurred”,ex)

finally:

GPIO.cleanup()