TI-RSLK MAX

Texas Instruments Robotics System Learning Kit

Texas Instruments

Module 20

Quiz: Wi-Fi

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Q1 Cloud

Your cloud server used fields within the Greeting class on the data-logging server. This is a typical piece of the Python code similar to the one inside your server. Explain in general what these fields are used for.

```
# [START greeting]
class Greeting(ndb.Model):
    """A main model for a Guestbook entry."""
    author = ndb.StringProperty(indexed=False)
    xpos = ndb.StringProperty(indexed=False)
    ypos = ndb.StringProperty(indexed=False)
    theta = ndb.StringProperty(indexed=False)
    date = ndb.DateTimeProperty(auto_now_add=True)
    action = ndb.StringProperty(indexed=False)
    ipaddr = ndb.StringProperty(indexed=False)
# [END greeting]
```

Q2 Internet protocol

What are the differences between UDP and TCP? What are the similarities? Discuss IP address, sockets, average bandwidth, and reliability?

Q3 Internet protocol

Explain how the connection socket and client socket are used when uploading data from the robot to a server.

Q4 Internet protocol

What is the response from the internet when a TCP packet is lost?

Q5 Fundamentals of SPI

Connect two MSP432 CC3100 via their SPI (SOMI, SIMO, CLK, and STE), creating a bidirectional data channel between the microcontrollers. How could you have configured the MSP432 to operate with interrupt-driven communication? In this application, what do master and slave mean?

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