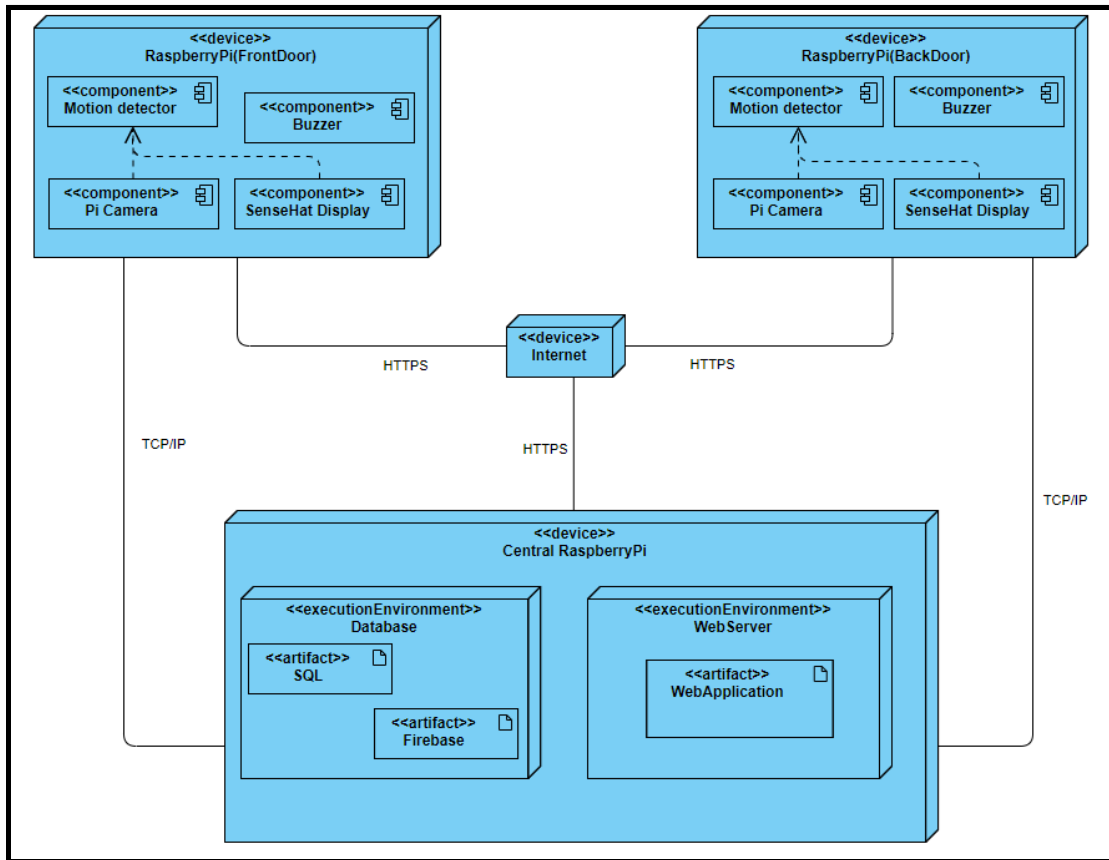


Test Plan: Unit-Testing plan

Deployment diagram is shown below from Detailed design report



Hardware Testing:

Motion Sensor & PiCamera test plan:

- **Test case #1:** If motion is detected but no Image taken
 - print('Test failed')
- **Test case #2:** If motion is detected and image is taken
 - print('Test Passed')

Buzzer and Motion sensor:

- **Test Case #1:** If motion is detected then buzzer activated
 - print("Test Passed")
- **Else:**
 - print("Test Failed")

Software Testing:

Node 1 Testing plan: FrontDoor

- For this node we will be creating a mock server for testing purposes. The mock server will receive motion sensor data and image and if the mock server receives both then Test will pass else they will fail
- **Test Case #1:** Camera takes an image when motion is detected
 - print("Test has passed")
- **Test Case #2:** motion sensed but no image was captured
 - print("Test has failed")
- **Test Case #3:** Picture taken but no motion sensed.
 - print("Test has failed")

Node 2 Testing plan: BackDoor

- For this node we will be using the mock server for testing purposes. The mock server will receive motion sensor data and image and if the mock server receives both then Test will pass else they will fail
- **Test Case #1:** Camera takes an image when motion is detected
 - print("Test has passed")
- **Test Case #2:** motion sensed but no image was captured
 - print("Test has failed")
- **Test Case #3:** Picture taken but no motion sensed.
 - print("Test has failed")

Node 3 Testing plan: Server

- Stub for Firebase and SQL is needed to test whether the server is able to successfully send the images to firebase and sensor data to SQL.
- Test case #1: If image is received in Firebase and also data is saved in SQL
 - print("Test Passed")
- Test case #2: If image is not sent to Firebase or SQL
 - print("Test Failed")