

Test Output

SUCCESSFUL CASES:

1. Turn ON WITH DEFAULT COLOR WHITE

```
% python3 iot-client.py 127.0.0.1 12000 ON
Sending Request to 127.0.0.1, 12000:
Message ID: 89
Power: 1
Color: none
Question Length: 4 bytes
Answer Length: 0 bytes

Return Code: 0 (No errors)
Message ID: 89
Bulb No: 1
Power: 1
Color: white
Question Length: 5 bytes
Answer Length: 33 bytes
Answer: Bulb No. 1 is ON and set to white
mahigada@mahi desktop %
```

2. TURN OFF

```
python3 iot-client.py 127.0.0.1 12000 OFF
Sending Request to 127.0.0.1, 12000:
Message ID: 18
Power: 0
Color: none
Question Length: 4 bytes
Answer Length: 0 bytes

Return Code: 0 (No errors)
Message ID: 18
Bulb No: 1
Power: 0
Color: none
Question Length: 4 bytes
Answer Length: 26 bytes
Answer: Bulb 1 has been turned OFF
```

3. TURN ON WITH SUPPORTED COLOR

```
% python3 iot-client.py 127.0.0.1 12000 ON yellow
Sending Request to 127.0.0.1, 12000:
Message ID: 8
Power: 1
Color: yellow
Question Length: 6 bytes
Answer Length: 0 bytes

Return Code: 0 (No errors)
Message ID: 8
Bulb No: 1
Power: 1
Color: yellow
Question Length: 6 bytes
Answer Length: 30 bytes
Answer: Bulb 1 is ON and set to yellow
```

4. GET STATUS

```
python3 iot-client.py 127.0.0.1 12000 STATUS
Sending Request to 127.0.0.1, 12000:
Message ID: 96
Power: 2
Color: none
Question Length: 4 bytes
Answer Length: 0 bytes

Return Code: 0 (No errors)
Message ID: 96
Bulb No: 1
Power: 1
Color: yellow
Question Length: 6 bytes
Answer Length: 32 bytes
Answer: Bulb 1 is ON and color is yellow
```

ERROR CASES:

1. UNKNOWN COMMAND

```
python3 iot-client.py 127.0.0.1 12000 test
Sending Request to 127.0.0.1, 12000:
Message ID: 68
Power: 4
Color: none
Question Length: 4 bytes
Answer Length: 0 bytes

Return Code: 1 (Unsupported Command)
Message ID: 68
Bulb No: 1
Power: 2
Color: error
Question Length: 5 bytes
Answer Length: 15 bytes
Answer: Unknown command
```

2. COLOR NOT SUPPORTED

```
% python3 iot-client.py 127.0.0.1 12000 SET violet
Sending Request to 127.0.0.1, 12000:
Message ID: 87
Power: 3
Color: violet
Question Length: 6 bytes
Answer Length: 0 bytes

Return Code: 2 (Unsupported Color)
Message ID: 87
Bulb No: 1
Power: 2
Color: error
Question Length: 5 bytes
Answer Length: 33 bytes
Answer: Color not supported at the moment
```

3. CHANGING COLOR WHEN BULB IS OFF

```
% python3 iot-client.py 127.0.0.1 12000 SET yellow
Sending Request to 127.0.0.1, 12000:
Message ID: 7
Power: 3
Color: yellow
Question Length: 6 bytes
Answer Length: 0 bytes
```

```
Return Code: 3 (change color while OFF)
Message ID: 7
Bulb No: 1
Power: 0
Color: error
Question Length: 5 bytes
Answer Length: 45 bytes
Answer: Please turn on the bulb before changing color
```

4. UNREACHABLE SERVER

```
% python3 iot-client.py 127.0.0.1 12000 SET yellow
Sending Request to 127.0.0.1, 12000:
Message ID: 11
Power: 3
Color: yellow
Question Length: 6 bytes
Answer Length: 0 bytes
Request timed out...
Request timed out...
Request timed out ... Exiting Program.
```

SERVER OUTPUT:

```
python3 iot-server.py 127.0.0.1 12000
```