

Submission Worksheet

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<https://learn.ethereallab.app/assignment/IT114-003-F2024/it114-module-4-sockets-part-1-3/grade/ma2633>

Course: IT114-003-F2024

Assignment: [IT114] Module 4 Sockets Part 1-3

Student: Mohamad A. (ma2633)

Submissions:

Submission Selection

1 Submission [submitted] 10/7/2024 6:09:03 PM

Instructions

^ COLLAPSE ^

Overview Video: <https://youtu.be/5a5HL0n6jek>

1. Create a new branch for this assignment
2. If you haven't, go through the socket lessons and get each part implemented (parts 1-3)
 1. You'll probably want to put them into their own separate folders/packages (i.e., Part1, Part2, Part3) These are for your reference
3. Part 3, below, is what's necessary for this HW
 3. <https://github.com/MattToegel/IT114/tree/M24-Sockets-Part3>
4. Create a new folder called Part3HW (copy of Part3)
5. Make sure you have all the necessary files from Part3 copied here and fix the package references at the top of each file
 1. Add/commit/push the branch
 2. Create a pull request to main and keep it open
6. Implement **two** of the following **server-side** activities for all connected clients (majority of the logic should be processed server-side and broadcasted/sent to all clients if/when applicable)
 1. Simple number guesser where all clients can attempt to guess while the game is active
 1. Have a /start command that activates the game allowing guesses to be interpreted
 2. Have a /stop command that deactivates the game, guesses will be treated as regular messages (i.e., guess messages are ignored)
 3. Have a /guess command that include a value that is processed to see if it matches the hidden number (i.e., /guess 5)
 1. Guess should only be considered when the game is active
 2. The response should include who guessed, what they guessed, and whether or not it was correct (i.e., Bob guessed 5 but it was not correct)
 3. No need to implement complexities like strikes

2. Coin toss command (random heads or tails)
 1. Command should be something logical like `/flip` or `/toss` or `/coin` or similar
 2. The result should mention *who* did *what* and got what *result* (i.e., Bob Flipped a coin and got heads)
3. Dice roller given a command and text format of `/roll #d#` (i.e., `/roll 2d6`)
 1. Command should be in the format of `/roll #d#` (i.e., `/roll 1d10`)
 2. The result should mention *who* did *what* and got what *result* (i.e., Bob rolled 1d10 and got 7)
4. Math game (server outputs a basic equation, first person to guess it correctly gets congratulated and a new equation is given)
 1. Have a `/start` command that activates the game allowing equation to be answered
 2. Have a `/stop` command that deactivates the game, answers will be treated as regular messages (i.e., any game related commands when stopped will be ignored)
 3. Have an answer command that include a value that is processed to see if it matches the hidden number (i.e., `/answer 15`)
 1. The response should include who answered, what they answered, and whether or not it was correct (i.e., Bob answered 5 but it was not correct)
5. Private message (a client can send a message targeting another client where only the two can see the messages)
 1. Command can be `/pm`, `/dm` followed by the user's name or an `@` preceding the users name (clearly note which)
 2. The server should properly check the target audience and send the response to the original sender and to the receiver (no one else should get the message)
 3. Alternatively (make note if you do this and show evidence) you can add support to private message multiple people at once. Evidence should show a larger number of clients than the target list of the private message to show it works. Note to grader: if this is accomplished add 0.5 to total final grade on Canvas
6. Message shuffler (randomizes the order of the characters of the given message)
 1. Command should be `/shuffle` or `/randomize` (clearly mention what you chose) followed by the message to shuffle (i.e., `/shuffle hello everybody`)
 2. The message should be sent to all clients showing it's from the user but randomized
 1. Example: Bob types `/command hello` and everyone receives Bob: lleho
7. Fill in the below deliverables
8. Save the submission and generated output PDF
9. Add the PDF to the Part3HW folder (local)
10. Add/commit/push your changes
11. Merge the pull request
12. Upload the same PDF to Canvas

Group

100%

Group: Baseline

Tasks: 1

Points: 2

^ COLLAPSE ^

Task

100%

Group: Baseline

Task #1: Demonstrate Baseline Code Working

Weight: ~100%

Points: ~2.00

^ COLLAPSE ^

i Details:

This can be a single screenshot if everything fits, or can be multiple screenshots



Columns: 1

Sub-Task

100%

Group: Baseline

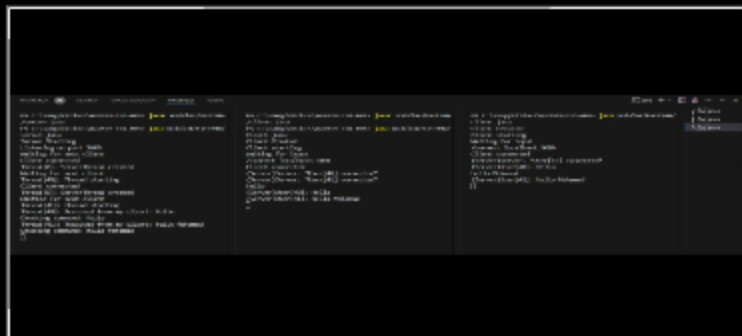
Task #1: Demonstrate Baseline Code Working

Sub Task #1: Show and clearly note which terminal is the Server

Task Screenshots

Gallery Style: 2 Columns

4 2 1



this show all of them

Caption(s) (required) ✓

Caption Hint: *Describe/highlight what's being shown*

Sub-Task

100%

Group: Baseline

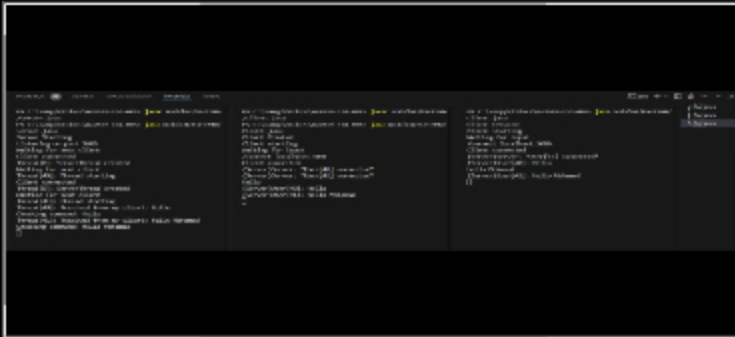
Task #1: Demonstrate Baseline Code Working

Sub Task #2: Show and clearly note which terminals are the client

Task Screenshots

Gallery Style: 2 Columns

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this show all of them

Caption(s) (required) ✓

Caption Hint: *Describe/highlight what's being shown*

Sub-Task

Group: Baseline

100%

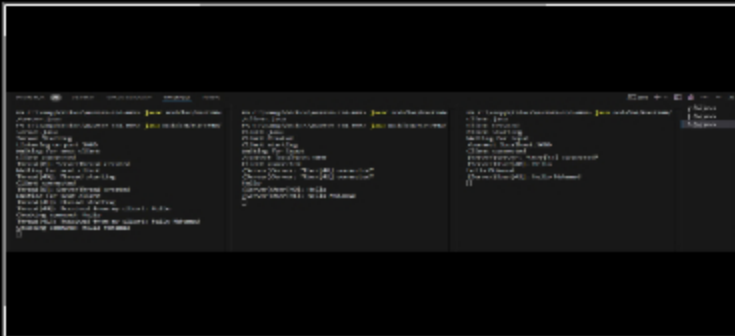
Task #1: Demonstrate Baseline Code Working

Sub Task #3: Show all clients receiving the broadcasted/relayed messages

Task Screenshots

Gallery Style: 2 Columns

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this show all of them

Caption(s) (required) ✓

Caption Hint: *Describe/highlight what's being shown*

Sub-Task

Group: Baseline

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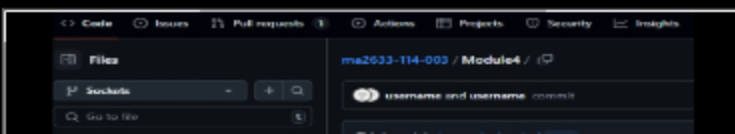
Task #1: Demonstrate Baseline Code Working

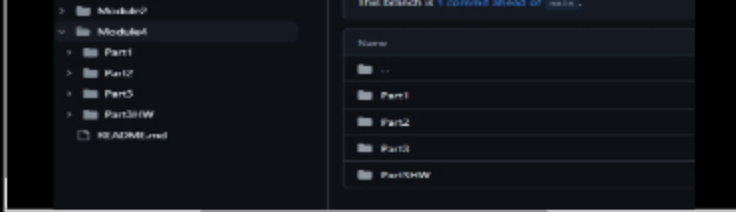
Sub Task #4: Include a screenshot showing you grabbed Parts 1-3 correctly and have them in your repository alongside Part3HW

Task Screenshots

Gallery Style: 2 Columns

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form GitHub

Caption(s) (required) ✓

Caption Hint: *Describe/highlight what's being shown*

End of Task 1

End of Group: Baseline

Task Status: 1/1

Group

100%

Group: Feature 1

Tasks: 1

Points: 3

^ COLLAPSE ^

Task

100%

Group: Feature 1

Task #1: Solution

Weight: ~100%

Points: ~3.00

^ COLLAPSE ^

Columns: 1

Sub-Task

100%

Group: Feature 1

Task #1: Solution

Sub Task #1: Show the code related to the feature (ucid and date must be present as a comment)

Task Screenshots

Gallery Style: 2 Columns

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this is Number Guesser Game

Caption(s) (required) ✓
Caption Hint: *Describe/highlight what's being shown*

Task Response Prompt

Mention specific feature and explain sufficiently and concisely the implementation (should be aligned with code snippets)

Response:

I implemented a number guessing game where the server picks a random number between 1 and 10 when /start is typed. Clients guess with /guess , and the server responds if it's correct or not. The game can be stopped with /stop. All the logic is handled by the server.

Sub-Task

100%

Group: Feature 1

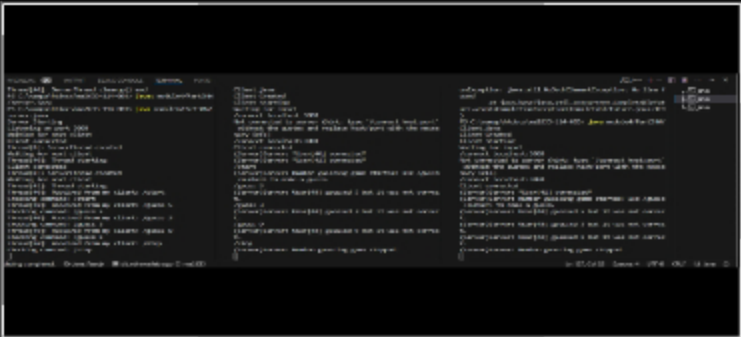
Task #1: Solution

Sub Task #2: Show the feature working (i.e., all terminals and their related output)

Task Screenshots

Gallery Style: 2 Columns

4 2 1



this shows the game working

Caption(s) (required) ✓
Caption Hint: *Describe/highlight what's being shown*

End of Task 1

End of Group: Feature 1
Task Status: 1/1

Group

100%

Group: Feature 2

Tasks: 1

Points: 3

⬅️ COLLAPSE ➡️

Task
Group: Feature 2

100%

Task #1: Solution
Weight: ~100%
Points: ~3.00

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Columns: 1

Sub-Task

Group: Feature 2

100%

Task #1: Solution

Sub Task #1: Show the code related to the feature (ucid and date must be present as a comment)

Task Screenshots

Gallery Style: 2 Columns

4

2

1

```
1 // ...
2 private boolean handleMessage(String message, Conversation history) {
3     if (message == null) {
4         return false;
5     }
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1000  // ...
```

this is the coin flip game

Caption(s) (required) ✓

Caption Hint: *Describe/highlight what's being shown*

Task Response Prompt

Mention specific feature and explain sufficiently and concisely the implementation (should be aligned with code snippets)

Response:

The Coin Toss feature lets clients flip a virtual coin by typing /flip or /toss. The server randomly picks either "heads" or "tails" and sends the result to everyone. I used a random function to decide the result and made sure the server sends a message to all clients about who flipped the coin and what the result was

Sub-Task

Group: Feature 2

100%

Task #1: Solution

Sub Task #2: Show the feature working (i.e., all terminals and their related output)

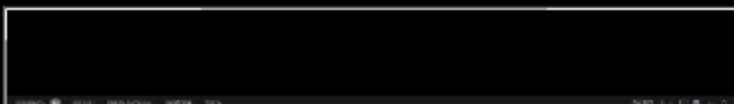
Task Screenshots

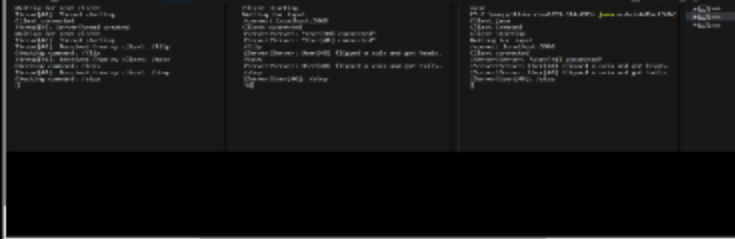
Gallery Style: 2 Columns

4

2

1





this is the coin flip working

Caption(s) (required) ✓

Caption Hint: Describe/highlight what's being shown

End of Task 1

End of Group: Feature 2

Task Status: 1/1

Group



Group: Misc
Tasks: 3
Points: 2

^ COLLAPSE ^

Task



Group: Misc
Task #1: Reflection
Weight: ~33%
Points: ~0.67

^ COLLAPSE ^

Sub-Task



Group: Misc
Task #1: Reflection
Sub Task #1: Learn anything new? Face any challenges? How did you overcome any issues?

Task Response Prompt

Provide at least a few logical sentences

Response:

One challenge I faced was making sure the server correctly sent the result of the coin toss to all connected clients. I solved this by using the relay() method to broadcast the message

End of Task 1

Task



Group: Misc
Task #2: Pull request link
Weight: ~33%

Points: ~0.67

^ COLLAPSE ^

Details:

URL should end with /pull/# and be related to this assignment



Task URLs

URL #1

<https://github.com/Mohamad4322/ma2633-114-003/>

URL

<https://github.com/Mohamad4322/ma2633-114-003/>

End of Task 2

Task



Group: Misc

Task #3: Waka Time (or related) Screenshot

Weight: ~33%

Points: ~0.67

^ COLLAPSE ^

Details:

Screenshot clearly shows what files/project were being worked on (the duration of time doesn't correlated with the grade for this item)



Task Screenshots

Gallery Style: 2 Columns

4 2 1

Files

00 waka

01 waka

02 waka

03 waka

04 waka

05 waka

06 waka

07 waka

08 waka

09 waka

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Branches

00 waka

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Projects • ma2633-114-003

43 mins over the Last 7 Days in ma2633-114-003 under all branches.

waketime

waketime/ i worked on ot on a different computer and waketime was not installed

End of Task 3

End of Assignment