CSC 3210- Computer Organization and Programming

Assignment 1: Developing Soft and Parallel Programming Skillset Using Project- Based Learning

Team 0101

Humaira Ridi
Thu Vo
Kirby Liu
Dhruv Parikh
Dhananjay Khazanchi

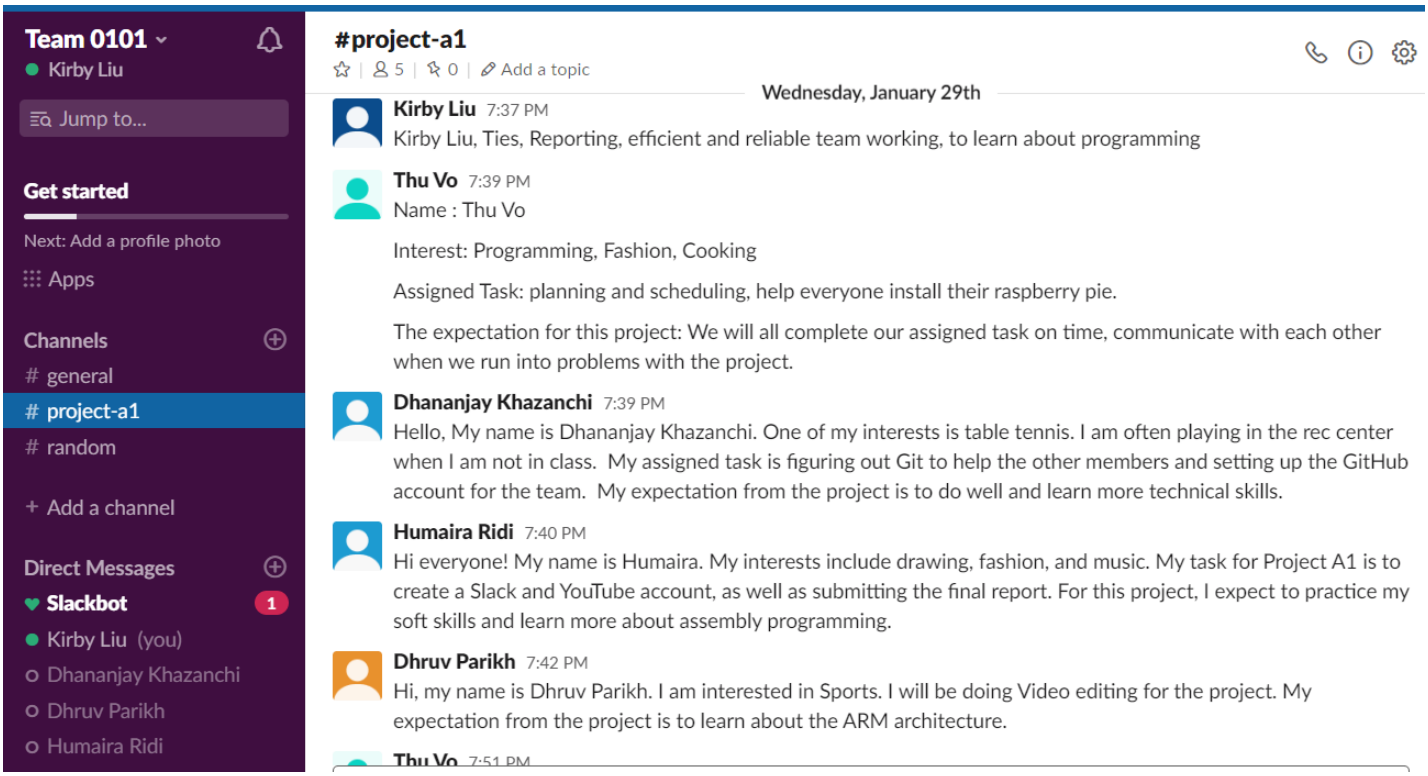
Team Name: Team 0101

Task 1- Planning and Schedule:

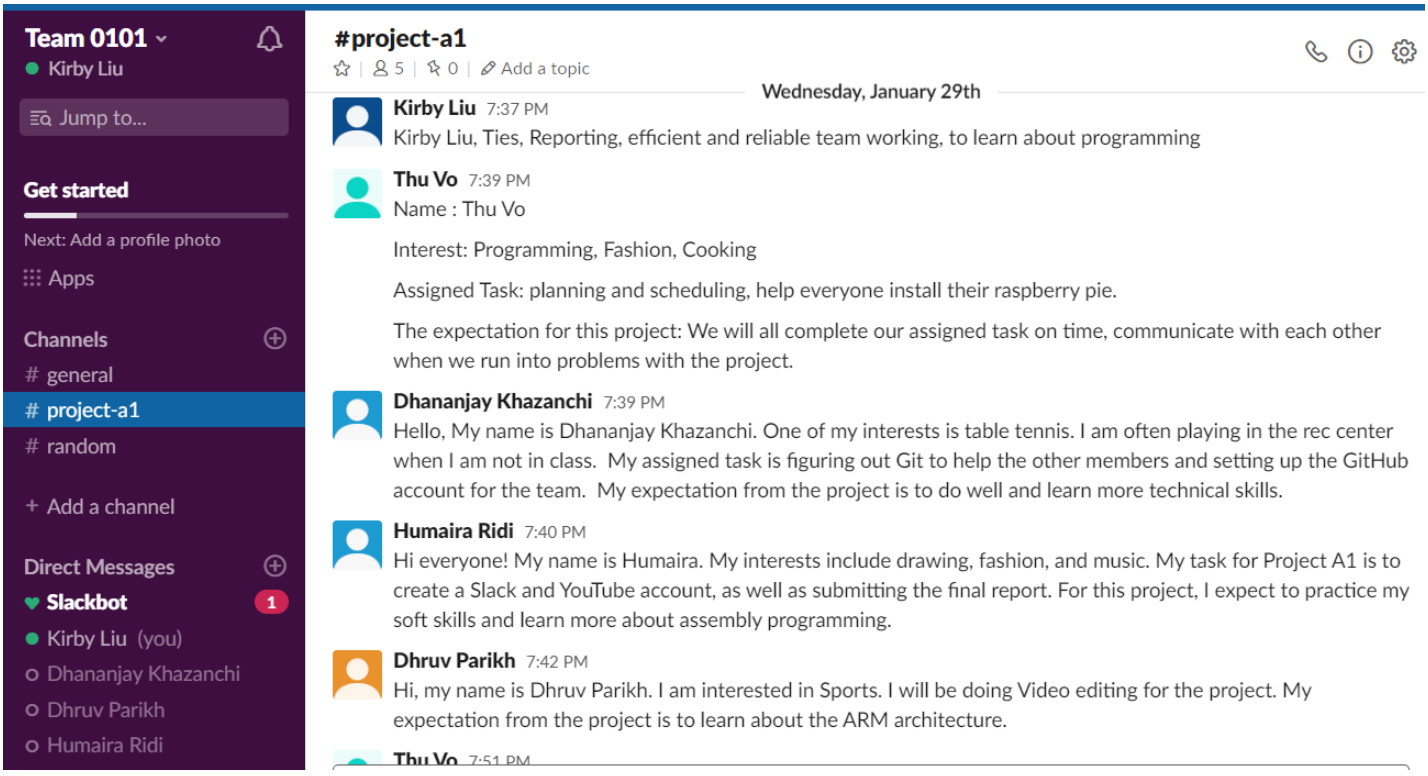
Name	Email	Task	Duration	Dependency	Due Date	Note
Humaira Ridi (Coordinator)	Hridi1@student.gsu.edu	Submit final report, Create Slack/YouTube	20 min	Finalized report	2/10/20	Turn in physical copy of finalized report during office hours
Thu Vo	Tvo55@student.gsu.edu	Planning/scheduling, Help everyone install their raspberry pi and connect to Github.	3 hours	Have everyone schedule, everyone keeping track of their progress	2/8/20	Have screenshots and explanations for assembly part 1 and 2
Kirby Liu	Kliu8@student.gsu.edu	Report Presentation Slide Design	3 hours	All other portions	2/8/20	Make sure Report meets criteria
Dhruv Parikh	Dparikh5@student.gsu.edu	Presentation	3-8 min	Video editing software	2/8/20	Editing
Dhananjay Khazanchi	Dkhazanchi1@student.gsu.edu	Github	5 hrs	Github	2/8/20	Create GitHub account and help others with setup

Task 2- Communication and Collaboration:

Slack
Screen Shot of Slack w/ Team name and Introductions

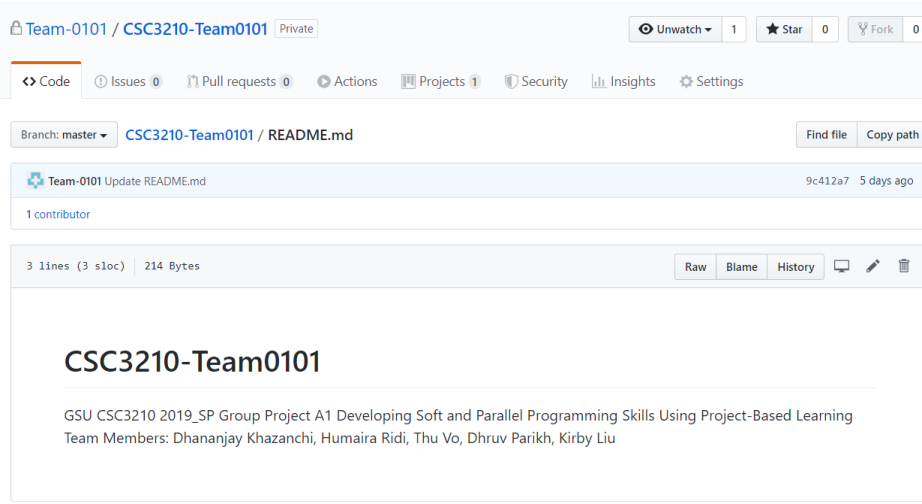


Slack link: https://team0101workspace.slack.com/archives/CT585QZ44

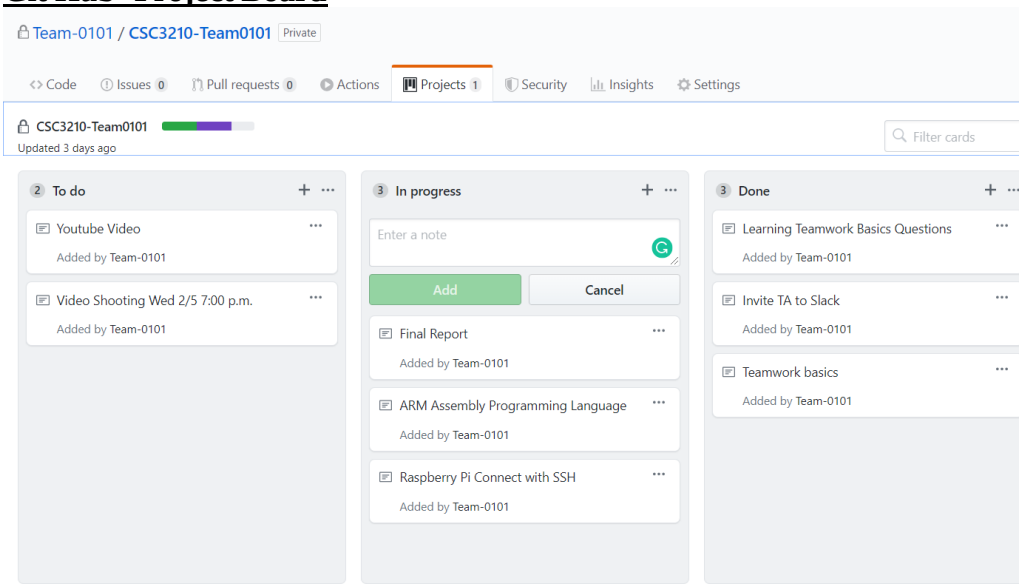


Git Hub

Git Hub-Read Me File



Git Hub- Project Board



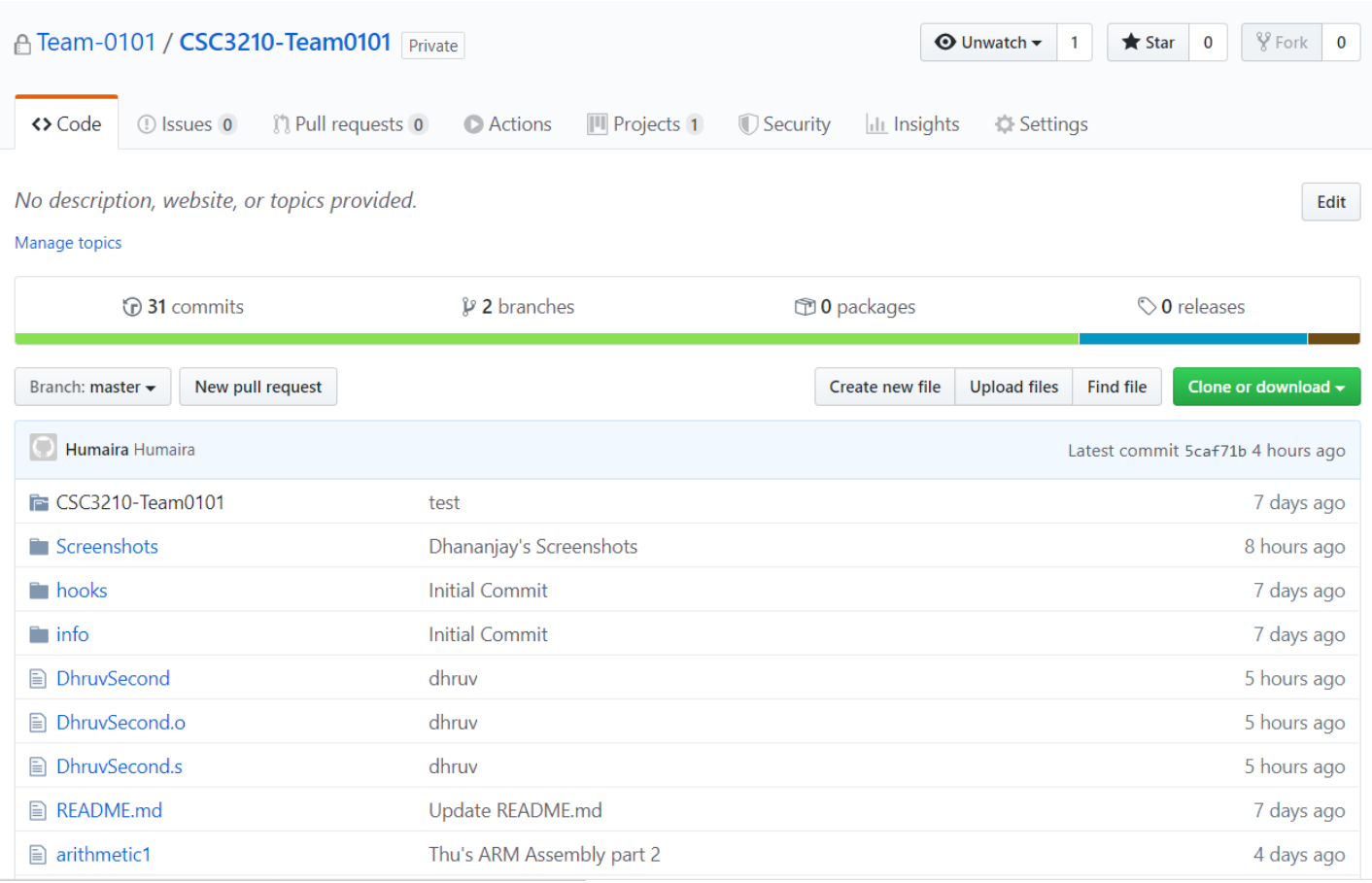
Git Hub link: https://github.com/Team-0101/CSC3210-Team0101

Task 3- Learning Teamwork Basics:

See Appendix B- Individual Reports

Task 4- Raspberry PI Installation and ARM Assembly Programming

Screen Shot-Team-0101/CSC3210-Team0101 GitHub Repository with Connected Raspberry Pi



See Appendix B- Individual Reports for individual Screenshots

Task 5: Presentation

YouTube Link:

https://www.youtube.com/watch?v=9MFfSk87G2A

Appendix A- Link

Slack link: https://team0101workspace.slack.com/archives/CT585QZ44
Youtube link: https://www.youtube.com/watch?v=9MFfSk87G2A
Git Hub link: https://github.com/Team-0101/CSC3210-Team0101

Appendix B- Individual Reports

Task 3/4 Individual Reports- Team Work Basics and ARM Assembly Programming

Kirby Liu

Teamwork Basics

- **What to do to get the task accomplished and the team members' satisfaction high?**
  - Ensure everyone is clear and on the same page on deliverables and deadline
  - Agenda Meetings should have minutes, set start and end times, emailed follow up of next tasks
  - Team check-in communication should take place on status regularly
- **Answer all the questions in the Work Norms, Facilitator Norms, Communication Norms using your own words and your own context**.

- **Work Norms:**
  - How will work be distributed?
    - Based on individual expertise, strengths, and input
    - First person to volunteer to do the assigned tasks
  - Who will set deadlines?
    - Coordinator sets but based on team input
  - What happens if someone doesn't follow through on his/her commitment (for example, misses a deadline)?
    - Bring to the attention of the team member about his/her actions
    - Require update on new deadline
  - How will the work be reviewed?
    - Each member is responsible for their individual contribution and giving their best effort
    - Team Coordinator is tasked with reviewing each team member contributions
  - What happens if people have different opinions about the quality of the work?
    - Discussion required for each team members ability to contribute
    - List different possible outcomes
    - Vote on the path forward
  - What happens if people have different work habits (e.g., some people like to get assignments done right away; others work better with the pressure of a deadline).
    - The deadlines are set so that people can work in their preferred method, so long as the deadlines are accomplished.
    - If deadlines are not respected by individuals and adversely affect team output, then the team will have a conversation with team member to decide on different path moving forward (reducing assigned tasks, giving another opportunity to finish, etc).
- **Facilitator Norms:**
  - Will you use a facilitator?
    - Yes
  - How will the facilitator be chosen?
    - The coordinator for the project will take the facilitator role
  - Will you rotate the position?
    - Yes
  - What are the responsibilities of the facilitator?
    - Keep the team on track when the team is going off-topic
    - Mediate conflict
    - If discussion or conflict interrupt or adversely affect the team then facilitator can call a pause to the meeting
- **Communication Norms:**
  - When should communication takes place and through what medium (e.g., do some people prefer to communicate through e-mail while others would rather talk on the phone)?
    - Group Communications
      - ♦ Through Slack
      - ♦ Google Hang-out
      - ♦ GroupMe
      - ♦ Face to Face meetings
    - Urgent Individual Notification:
      - ♦ Texts

- Phone Call

- **Meeting Norms:**
  - What is everyone's schedule?

Thu Vo	• M: available after 5:00PM • T: available for the whole day • W: available after 5:00PM • R: available after 11:00AM • F: available for the whole day - I usually will not be on campus on thursday and friday, but I can be on campus if you let me know beforehand.
Kirby Liu	Monday- Before/after 12:30pm-3:15pm Tuesday- Before/After 2:15pm- 5:45pm Wednesday - Before/After 12:30pm-5:00pm Thursday- 2:15pm- 5:45pm Friday- After 10am Not Available 1/28, 1/31
Humaira Ridi	M: Before 12:30pm, after 4:45pm/6:45pm T: Whole day W: Before 12:30pm, after 4:45pm/6:45pm R: Before 1pm, after 2:40pm F: Before 11am, after 11:50am
Dhruv Parikh	M - 12 pm to 2pm, 3:15 to 5:30pm, after 6:45pm T - Before 2:15 pm and after 3:30pm W - 11:00am to 1 pm, 3:15pm to 5:30pm, after 6:45pm TR - 11:00 am to 2:00pm, 3:30pm to 6pm F - I will not be on campus, but if we all decide to do something I can come.
Dhananjay Khazanchi	M - 11:00 - 2:00; 3:15 - 4:30; after 7:00 T - 11:00 - 2:15; 3:30 - 4:30; after 7:00 W - 11:00 - 2:00; 3:15 - 4:30; after 7:00 R - 12:40 - 2:15; after 4:50 F: anytime until 8:00 pm

  - Should one person be responsible for coordinating meetings?
    - Everyone's input goes into scheduling time
    - The Coordinator sends out notification
  - Do people have a preference for when meetings are held?
    - Yes. It depends on their schedule for that day
    - Tuesday 10am and Fridays 10am
  - Where is a good place to hold meetings?
    - Library study rooms
    - Honors College
  - What happens if people are late to a meeting?
    - Inform the rest of the team how late you will be to the meeting
    - If too many tardies take place, then member will be notified of need to change
  - What happens if a group member misses a meeting?
    - The group member needs to reach out to team and complete deadline tasks
    - Meeting notes will inform the absent team member of missed assignment/deadline
  - What if he/ she misses several meetings?
    - Team member will need to have some very important reason to miss
    - Too many absences will require an action plan of change of conduct

- **Consideration Norms:**

- Can people eat at meetings? smoke?
  - People can eat, so long as it is not distracting. No Smoking
- What happens if someone is dominating the discussion?
  - If it is disrupting the meeting, then we will have people take turns speaking
- How can norms be changed if someone is not comfortable with what is going on in the team?
  - Any team member can propose meeting or topic regarding what he or she is uncomfortable with. Then a vote can take place

❖ **As a team, select two cases out of the four mentioned in Handling Difficult Behavior.**
- Case 1: Complains- If the problem is a real issue, then ask the team member how s/he would like to resolve the problem, if feasible then assign the team member the action to resolve problem,
- Case 2: Too Quiet- Sometimes, ask the team member how they feel about the project direction and give them a safe space to speak their mind. Afterwards maybe in a more one-on-one setting, inquire if there is anything they would like to add to make sure their inputs are heard

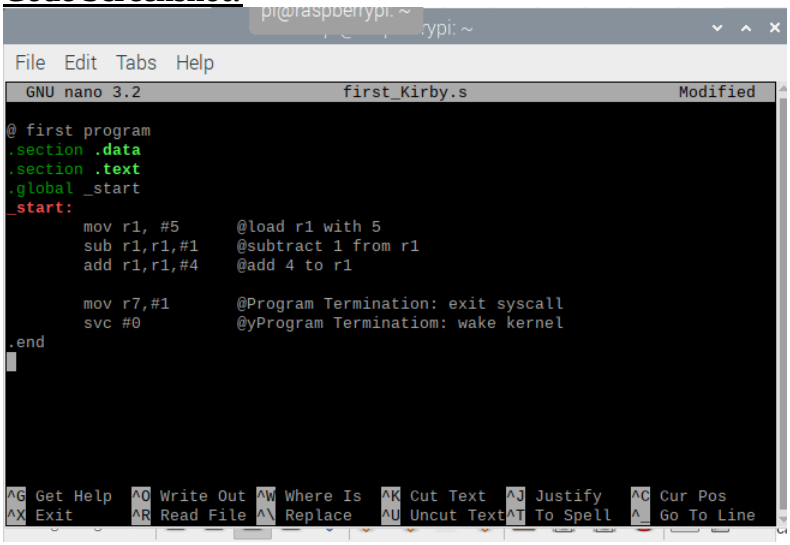
❖ **When making decisions, if the team is having trouble reaching consensus, what should you do?**
- With a vote, we move the team and project forward

❖ **What should you do if a person may reach a decision more quickly than others and pressure people to move on before it is a good idea to do so?**
- Any member of the team can say that they would like to take some time to think, discuss, revisit options for how the team should proceed

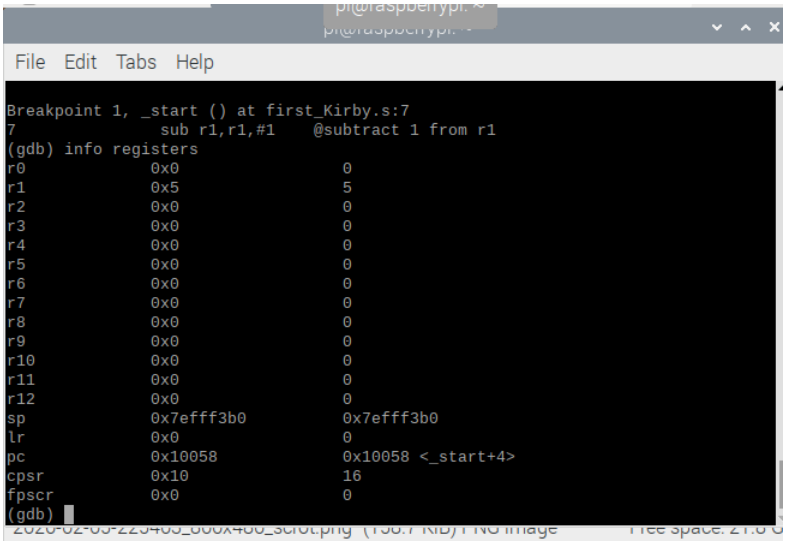
❖ **What happens if most people on the team want to get an "A" on the assignment, but another person decides that a "B" will be acceptable?**
- The main point is the move the team/project forward. It should be discussed the expectations for contributions, then if there are any large lapse of expected efforts of the team member then a vote on how to move forward should be discussed and initiated.

Kirby Liu
ARM Assembly Programming

Exercise 1-
Code Screenshot:

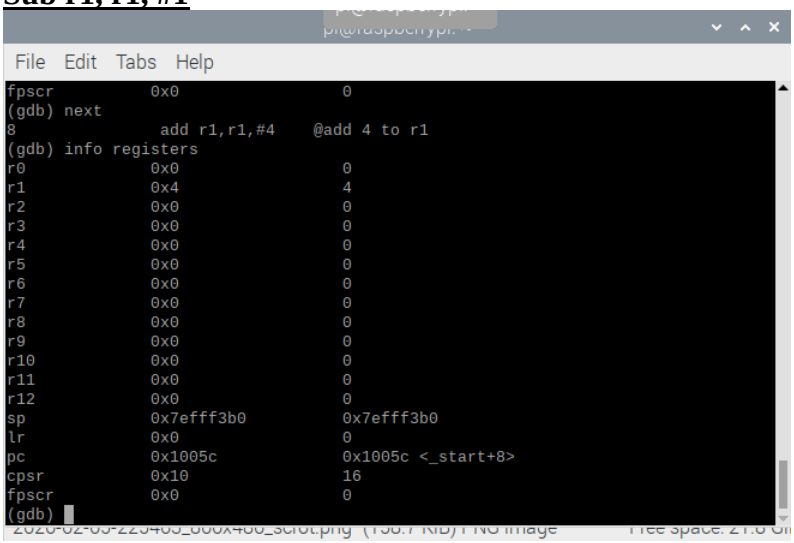


Mov r1, #5:



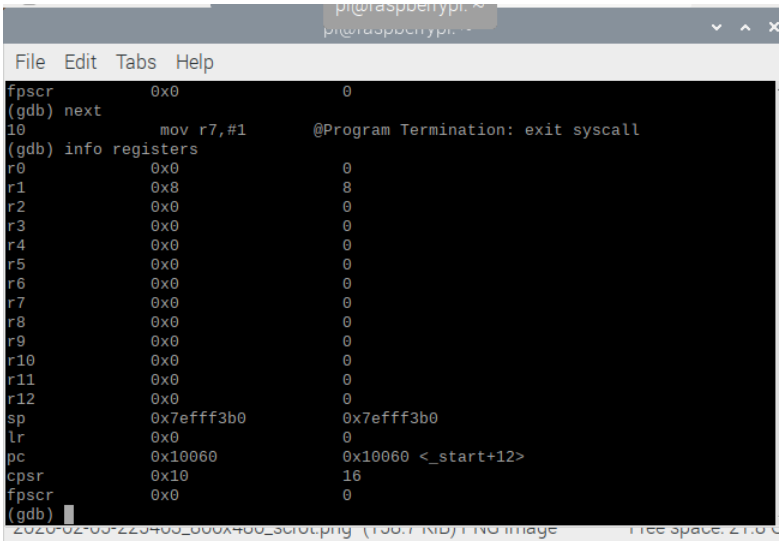
R1 is loaded with 5

Sub r1, r1, #1



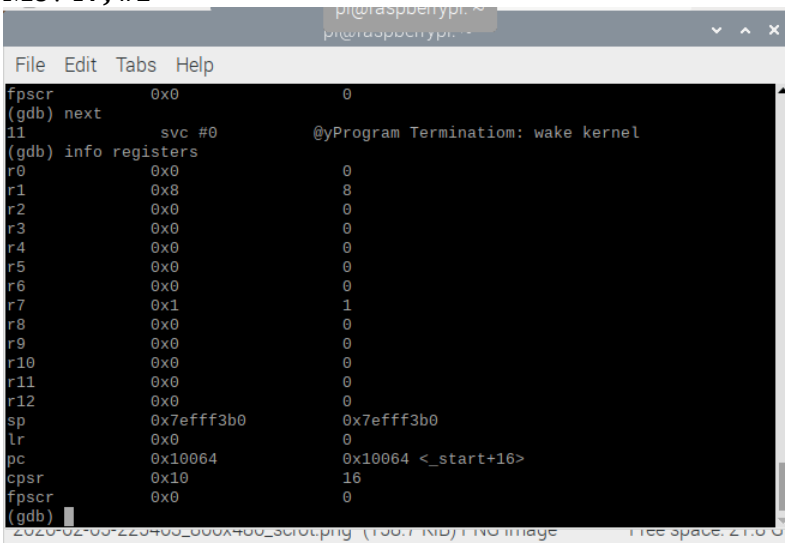
Subtract 1 from r1 and store in r1(4)

Add r1,r1,#4:



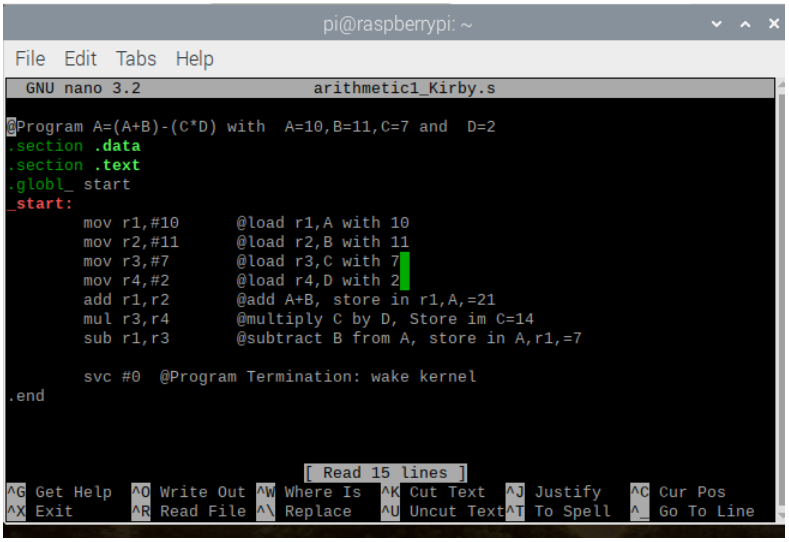
Add 4 to r1 and store in r1(8)

Mov r7, #1

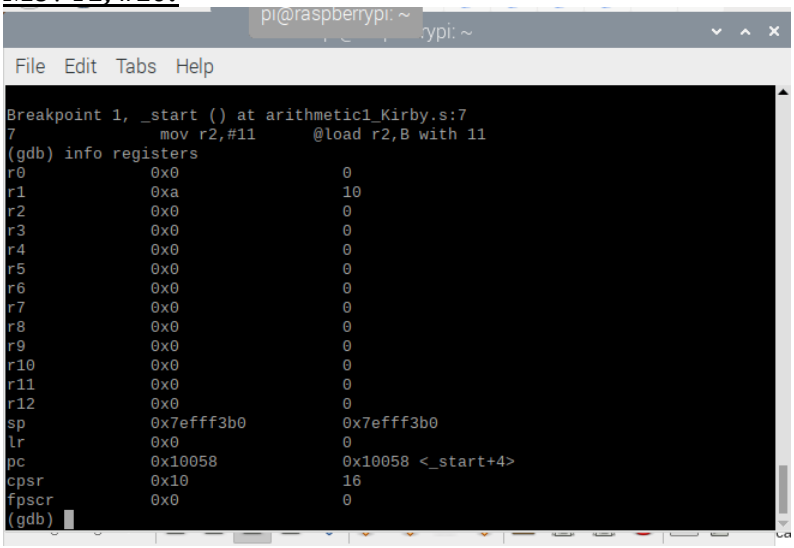


Load r7 with #1
Registers are r1=8, r7=1

Exercise 2-
<u>Screenshot of Code for Exercise 2:</u>

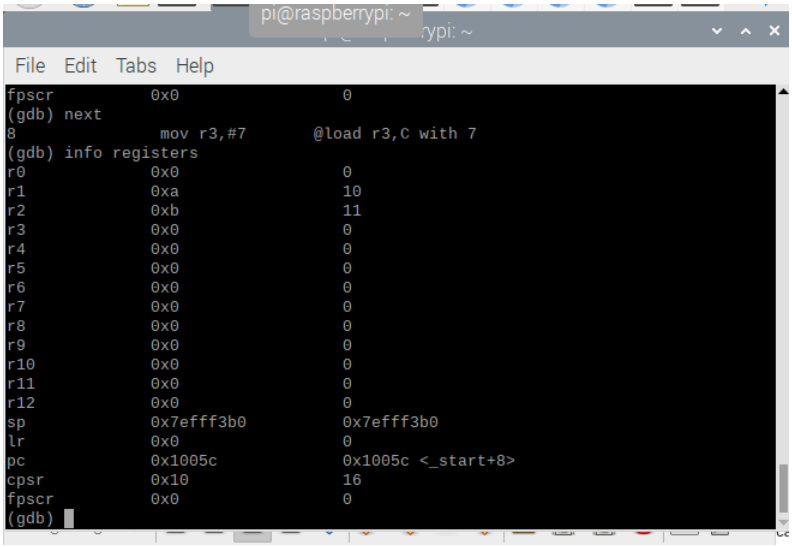


Mov r1, #10:



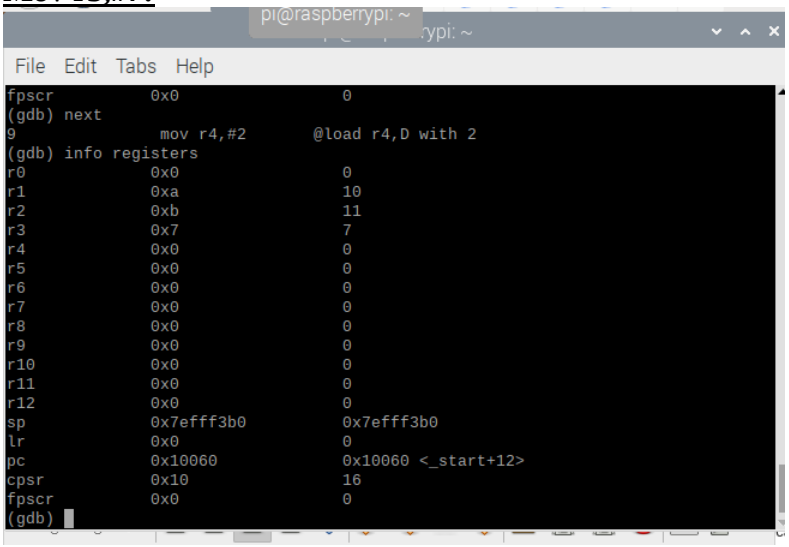
Load r1 with 10

Mov r2, #11:



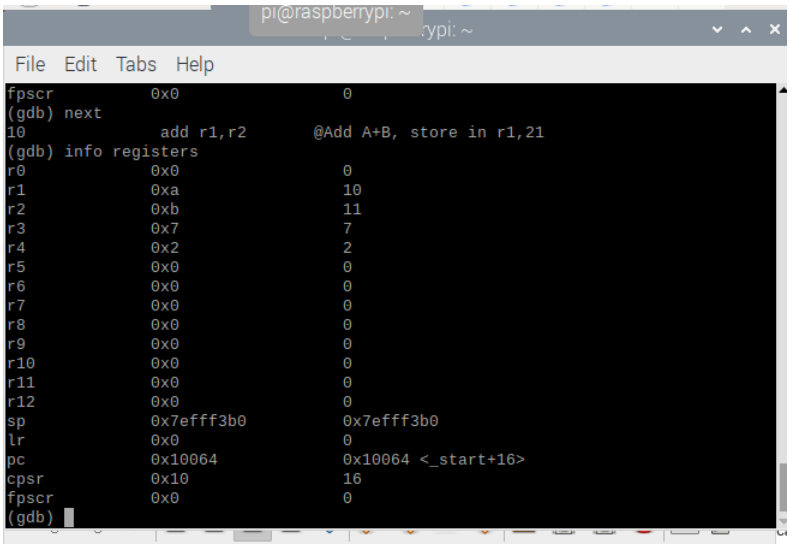
Load r2, #11

Mov r3,#7:



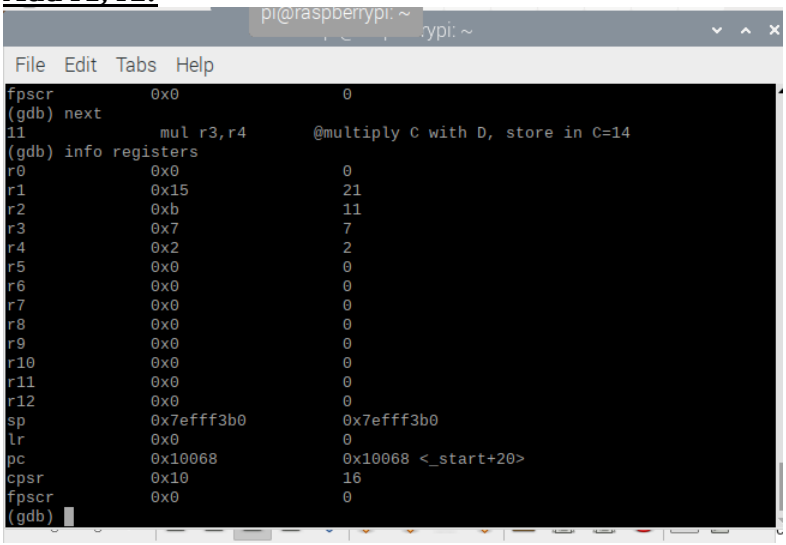
Load r3 with 7

Mov r4,2:



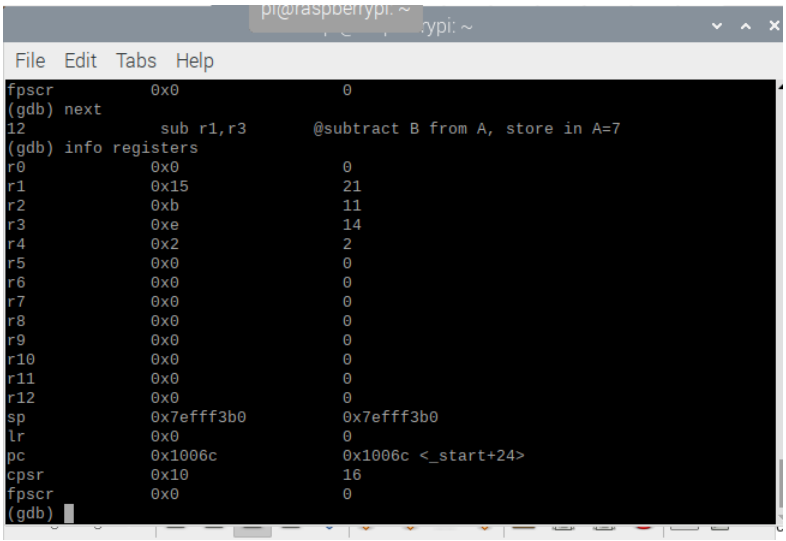
Load r4 with 2

Add r1, r2:



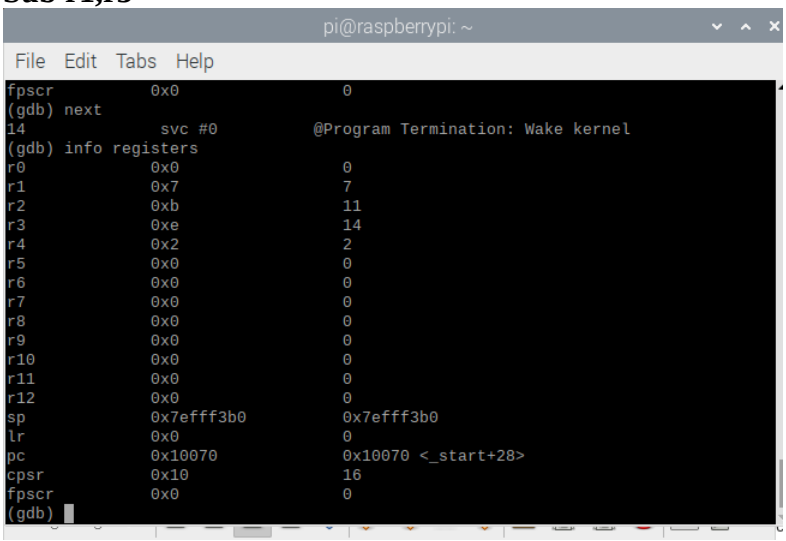
Add r2(11) to r1(10) and store in r1(21)

Mul r3, r4:



Multiply r3(7) with r4(2) and store in r3(14)

Sub r1,r3



Subtract r3(14) from r1(21) and store in r1(7)

<u>Thu Vo</u>

Teamwork Basics

- **What to do to get the task accomplished and the team members' satisfaction high?**
  - Everyone is expected to finish the work by the deadline. If one cannot meet the deadline the member should communicate with the group prior the deadline. To avoid wasting time in meeting, start and end time will be set and there will be an agenda.
- **Answer all the questions in the Work Norms, Facilitator Norms, Communication Norms using your own words and your own context**.
  - **Work Norms:**
    - How will work be distributed?
      - The work will be assigned to what the team member is good at.
    - Who will set deadlines?
      - The project coordinator

- What happens if someone doesn't follow through on his/her commitment (for example, misses a deadline)?
    - The group will have a discussion with that team member and further action will be taken if the team is not cooperating in the future.
- How will the work be reviewed?
    - Peer review, team members will check each other work.
- What happens if people have different opinions about the quality of the work?
    - We will have a group meeting, trying to come to a compromise. If a compromise can't be reach, the team will vote.
- What happens if people have different work habits (e.g., some people like to get assignments done right away; others work better with the pressure of a deadline).
    - Deadline will be set based on the project due date and everyone's schedule.

➢ **Facilitator Norms:**

- Will you use a facilitator?
    - Yes
- How will the facilitator be chosen?
    - The project coordinator will also be the facilitator
- Will you rotate the position?
    - Yes
- What are the responsibilities of the facilitator?
    - Make sure everyone is on track with their task, by letting the team know where we are on the project.

➢ **Communication Norms:**

- When should communication takes place and through what medium (e.g., do some people prefer to communicate through e-mail while others would rather talk on the phone)?
    - The team we communicate through Slack channel and weekly group meeting.

➢ **Meeting Norms:**

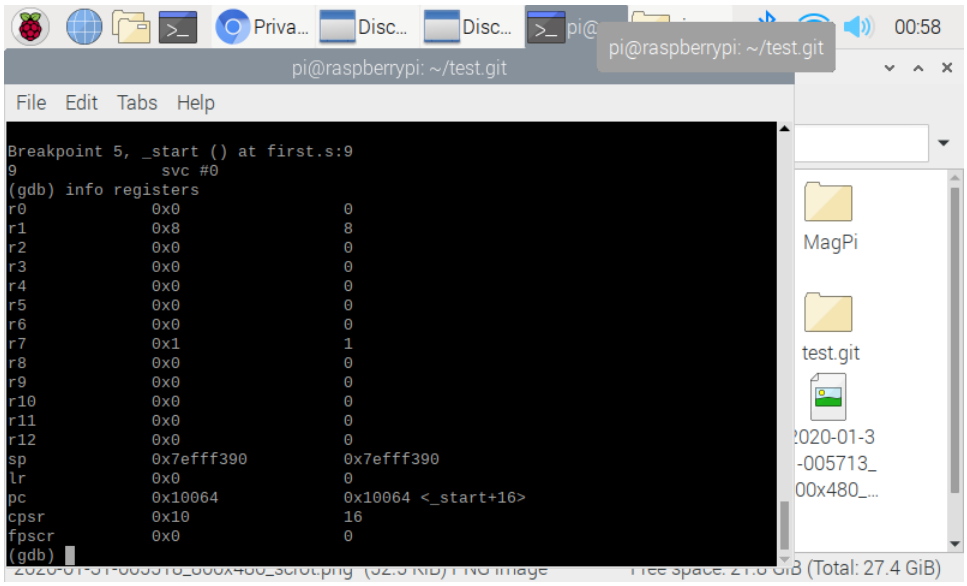
- What is everyone's schedule?
    - Everyone has different schedule based on the courses that they take. Everyone's schedule can be found in the report.
- Should one person be responsible for coordinating meetings?
    - Everyone should contribute to coordinating the meeting. One team member will choose and book the meeting place, another member will write down the meeting plan, and another member will send out a meeting time reminder.
- Do people have a preference for when meetings are held?
    - Yes, members are ok with meeting on Tuesday from 11 to 2, Wednesday after 7:00pm, or on Friday.
- Where is a good place to hold meetings?
    - The library group study room, or 55 Park Place
- What happens if people are late to a meeting?
    - That person should let the team know how late they going to be.
- What happens if a group member misses a meeting?
    - It is the person's responsibility to ask get update on what is going on at the meeting.
- What if he/ she misses several meetings?

        - The team will have a group discussion with that team member about how importance is the team meeting.
    - **Consideration Norms:**
        - Can people eat at meetings? smoke?
            - People can eat, but no smoking allowed.
        - What happens if someone is dominating the discussion?
            - Then will we take turn one by one, making sure that everyone has a chance to voice his/her opinions.
        - How can norms be changed if someone is not comfortable with what is going on in the team?
            - The person can bring up the topic and the team will have a group discussion to see if anything can be change or improve.
- As a team, select two cases out of the four mentioned in Handling Difficult Behavior. (use your own words and your own context)
    - Argues: The team will take a moment for both sides to think and calm down, before getting back to the conversation.
    - Overly Talkative: Everyone will take turn to speak, when it is the person's turn that person have the right to speak and everyone must listen and wait for their turn to say something.
- When making decisions, If the team is having trouble reaching consensus, what should you do? (use your own words and your own context)
    - First, we will have a group discussion, then the decision will be made based on the majority opinion.
- What should you do if person may reach a decision more quickly than others and pressure people to move on before it is a good idea to do so?
    - The team will set a time period for planning and decision making before continue working on the project.
- What happens if most people on the team want to get an "A" on the assignment, but another person decides that a "B" will be acceptable?
    - The team will urge that person to be on with the team's expectation. If the person's work does not meet with the team's expectation, he/she will receive a low grade on work quality.

Thu Vo

ARM Assembly Programming

Part 1



– mov r1, #5

Put a 5 inside the register r1. The first column shows the value in register r1 in hexadecimal and the third column shows the value in decimal.

– sub r1, r1, #1

Subtract 1 from r1 and store the result in r1. r1 was 5, and now it is 4.

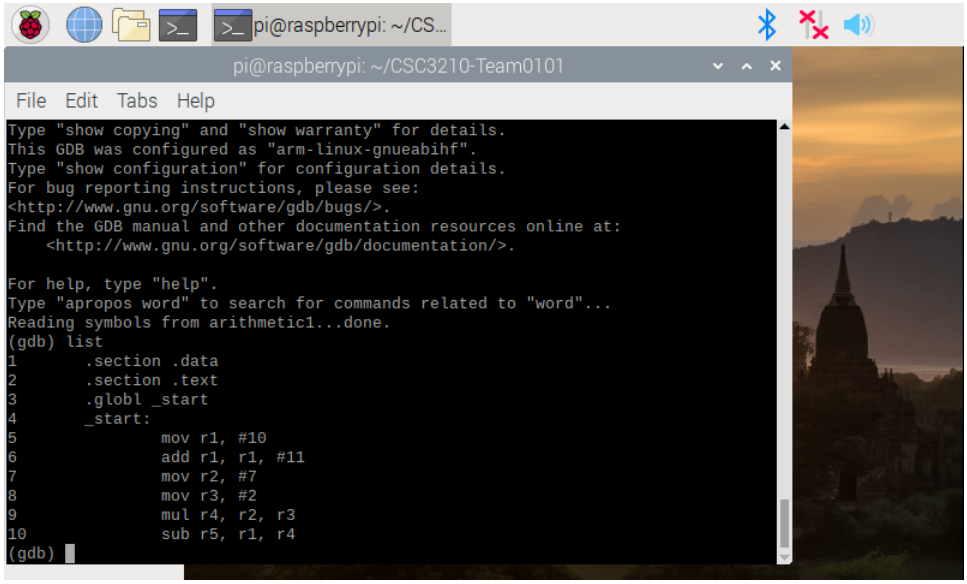
– add r1, r1, #4

Add 4 to r1 and store the result in r1. r1was 4 and now it is 8

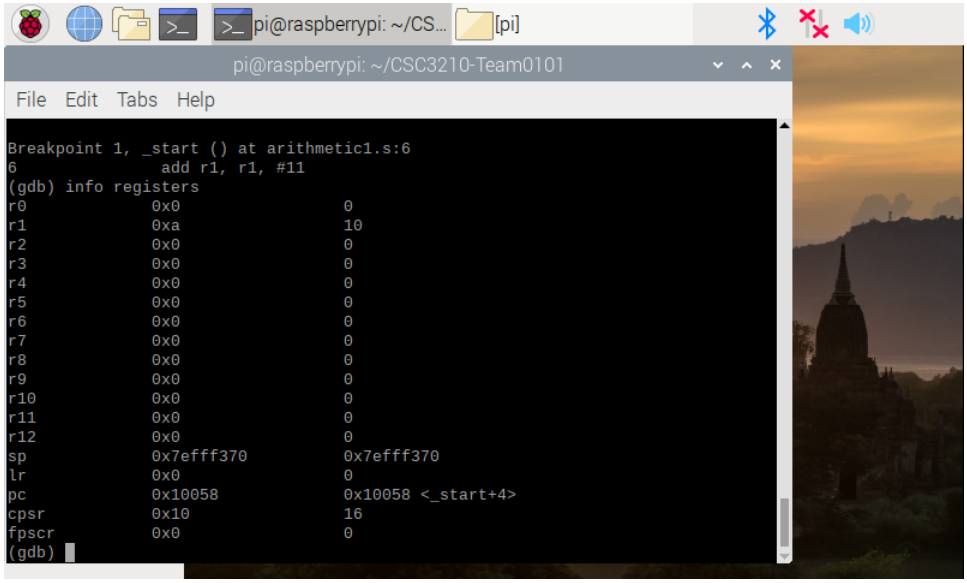
– mov r7, #1

Put a 1 inside the register r7.

Part 2

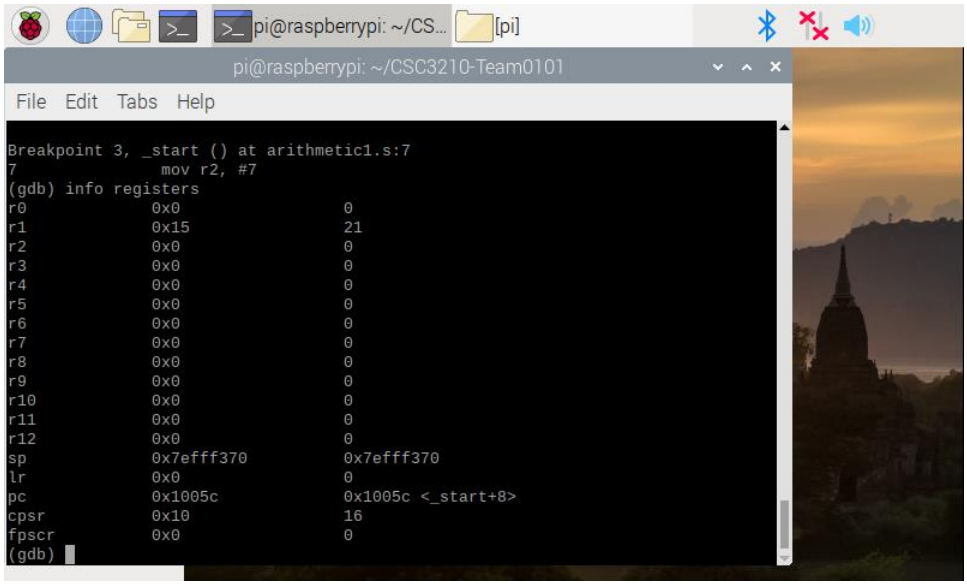


This is the program that I wrote in reference of Part 1. The program calculate the following: A = (A + B) − (C * D), where A=10, B=11, C=7, and D=2. The final result is 7, which will be store in r5.



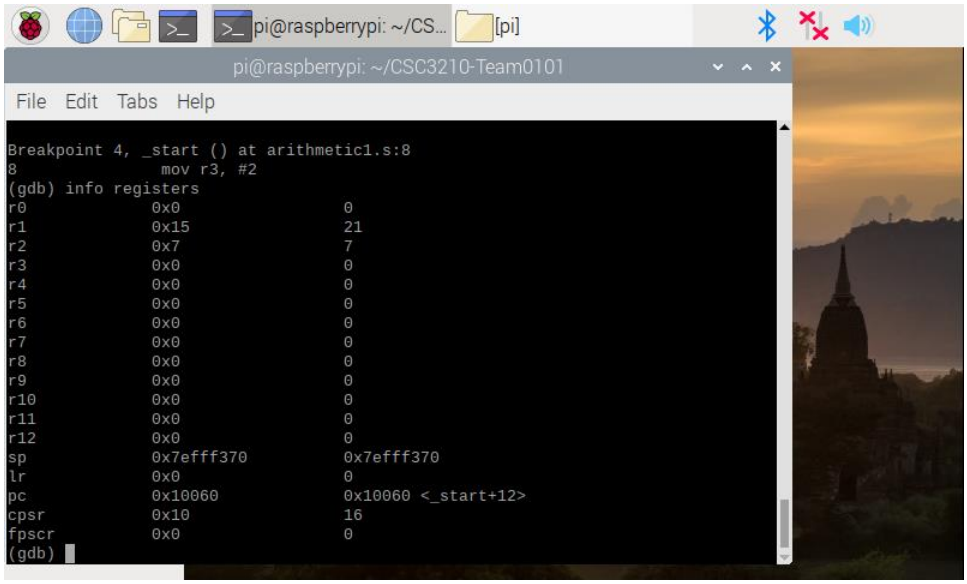
mov r1, #10

Put a 10 inside the register r1. The second column shown hexadecimal value, 10 in decimal is a in hexadecimal.



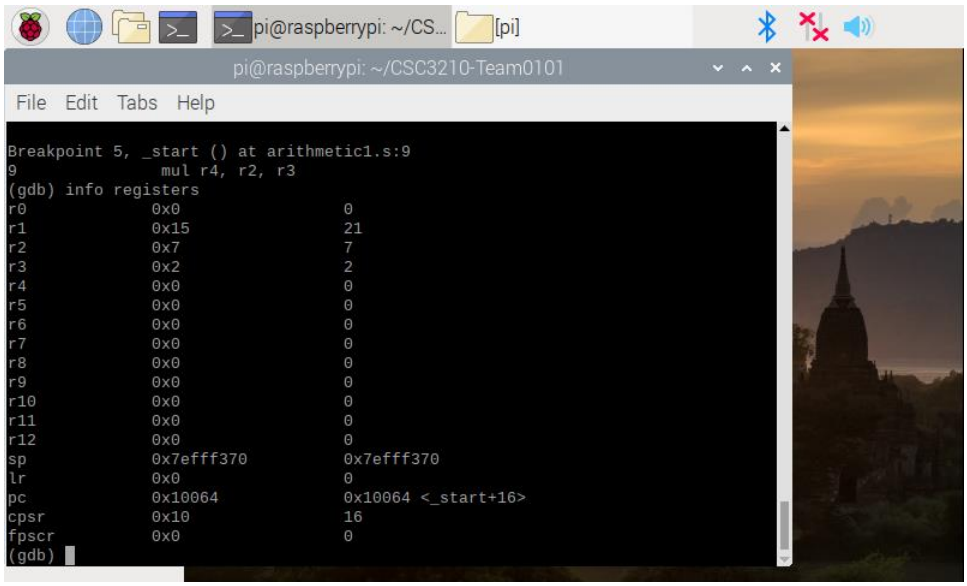
add r1, r1, #11

Add 11 to r1 and store the result in r1. r1 was 10, and now it is 21. This equivalent to the A+B part of the equation. So now r1 = A+B = 21. The second column shown 15, because 21 in decimal is 15 in hexadecimal.



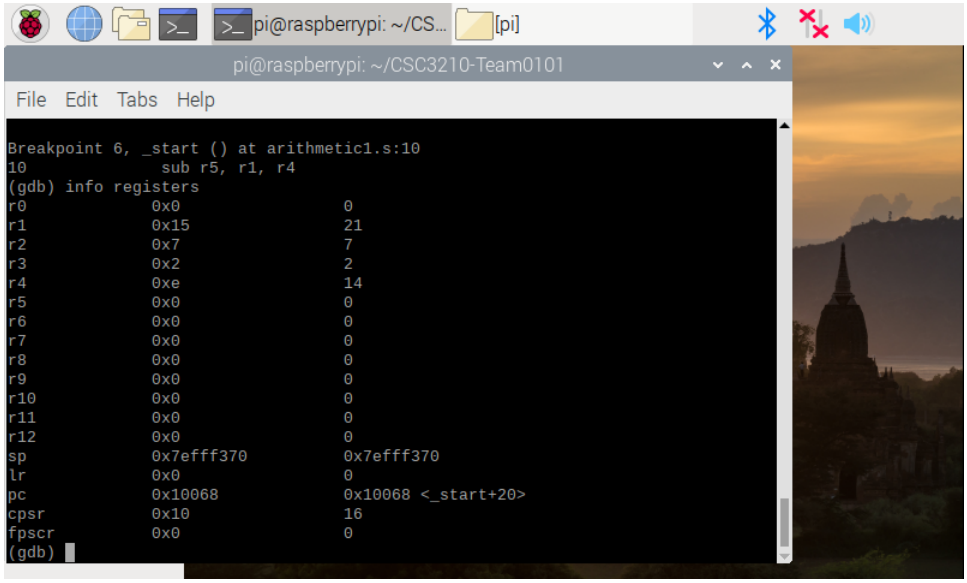
mov r2, #7

Put a 7 inside the register r2. r2 = C = 7.



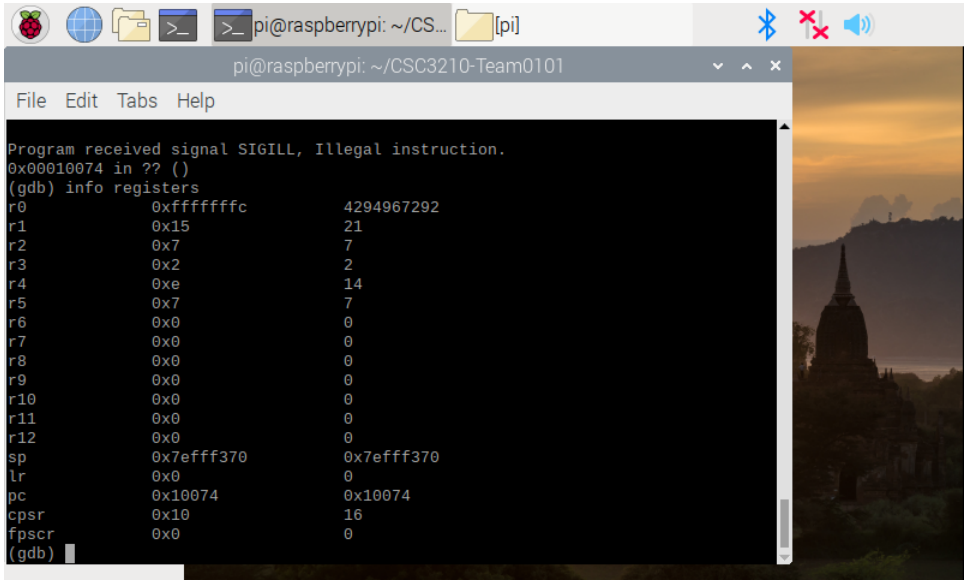
mov r3, #2

Put a 2 inside the register r3. r3 = D = 2.



mul r4, r2, r3

Multiply r2 and r3, then store the result in r4. This part equivalent to the C*D part of the equation. r4= r2*r3= C*D= 14. 14 in hexadecimal in e, which can be seen in the second column.



sub r5, r1, r4

Subtract r4 from r1 and store it in r5. r1= A+B= 21 and r4=C*D= 14, so r5= (A+B) - (C*D) = 21 -14= 7.

Dhruv Parikh

Teamwork Basics

- **What to do to get the task accomplished and the team member's satisfaction high?**
  - Set high goals before every meeting. Set some rules and specific day and time to meet for the project. Communicate with your teammates. Know how to avoid common problem.
- **Answer all the question in the Work norms, Facilitator Norms, Communication Norms using your own words and your own context.**
  - **Work Norms:**
    - How will work be distributed?
      - We will distribute the project work equally to every group member.
    - Who will set deadlines?
      - The Team Coordinator will set deadlines
    - What happens if someone doesn't follow through on his/her commitment (for example, misses a deadline)?
      - Try to divide his work with the rest of the four people
    - How will the work be reviewed?
      - By sending or showing your work to other teammates and implementing their critics.
    - What happens if people have different opinions about the quality of the work?
      - We will vote among yourself.
    - What happens if people have different work habits?
      - We will ask them to submit the work at least 24 hours before the due date.
  - **Facilitator Norms:**
    - Will you use a facilitator?
      - Yes, we will use facilitator
    - How will the facilitator be chosen?
      - The facilitator will be chosen by the Team Coordinator

- Will you rotate the position?
  - We will rotate the facilitator role every other project
- What are the responsibilities of the facilitator?
  - Setting goals before every team meeting.

➢ **Communication Norms:**

- When should communication takes place and through what medium?
  - Communication will take place whenever any teammate has a question or is having problem doing his task. Through Slack, GitHub, Online Video Conference Call

➢ **Meeting Norms:**

- What is everyone's schedule?

Thu Vo	• M: available after 5:00PM • T: available for the whole day • W: available after 5:00PM • R: available after 11:00AM • F: available for the whole day - I usually will not be on campus on thursday and friday, but I can be on campus if you let me know beforehand.
Kirby Liu	Monday- Before/after 12:30pm-3:15pm Tuesday- Before/After 2:15pm- 5:45pm Wednesday - Before/After 12:30pm-5:00pm Thursday- 2:15pm- 5:45pm Friday- After 10am Not Available 1/28, 1/31
Humaira Ridi	M: Before 12:30pm, after 4:45pm/6:45pm T: Whole day W: Before 12:30pm, after 4:45pm/6:45pm R: Before 1pm, after 2:40pm F: Before 11am, after 11:50am
Dhruv Parikh	M - 12 pm to 2pm, 3:15 to 5:30pm, after 6:45pm T - Before 2:15 pm and after 3:30pm W - 11:00am to 1 pm, 3:15pm to 5:30pm, after 6:45pm TR - 11:00 am to 2:00pm, 3:30pm to 6pm F - I will not be on campus, but if we all decide to do something I can come.
Dhananjay Khazanchi	M - 11:00 - 2:00; 3:15 - 4:30; after 7:00 T - 11:00 - 2:15; 3:30 - 4:30; after 7:00 W - 11:00 - 2:00; 3:15 - 4:30; after 7:00 R - 12:40 - 2:15; after 4:50 F: anytime until 8:00 pm

- Should one person be responsible for coordinating meetings?
  - No every should be responsible for coordinating the team.
- Do people have a preference for when meetings are held?
  - Yes, it will depend on their schedule for that day. Whenever all of us are available on the same day and time.
- Where is a good place to hold meetings?
  - Library, Conference room
- What happens if people are late to a meeting?
  - We will vote on what to do and ask the person why he/she were late. If it happens more than 3 time, we will deduct some points.
- What happens if a group member misses a meeting?
  - We will tell him what we did in that meeting and get him catchup.

- What if he/ she misses several meetings?
  - If he/she misses more than 3 meetings there will be consequences.

❖ **As a team, select two cases out of the four mentioned in Handling Difficult Behavior.**
- ➢ **Too quiet** – Ask for their opinion more, what they think about the project, get them more involved.
- ➢ **Argues** – If the argument is related to the project listen to it and if good apply. If his argument is invalid or not related to the work, as him/her to stay focused on the work.

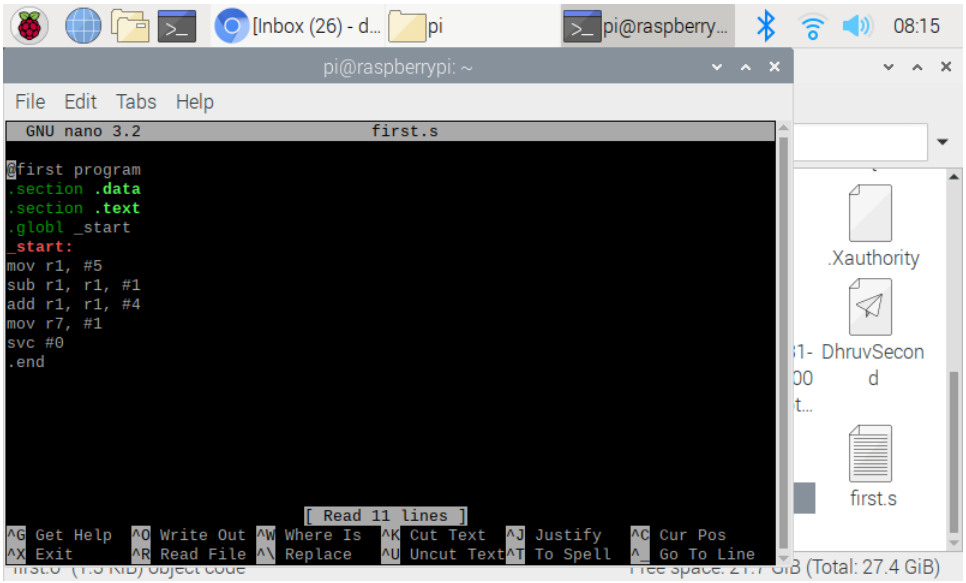
❖ **When making decisions, If the team is having trouble reaching consensus, what should you do?**
- ➢ Have a debate and if that does not work make a vote

❖ **What should you do if person may reach a decision more quickly than others and pressure people to move on before it is a good idea to do so?**
- ➢ Set a specific time were everyone can tell his/her ideas

❖ **What happens if most people on the team want to get an "A" on the assignment, but another person decides that a "B" will be acceptable?**
- ➢ Encourage the other person who wants a "B" to get an "A". And if the person who is okay with a "B" and does not do his/her work properly, the team members will have a conversation with that person.

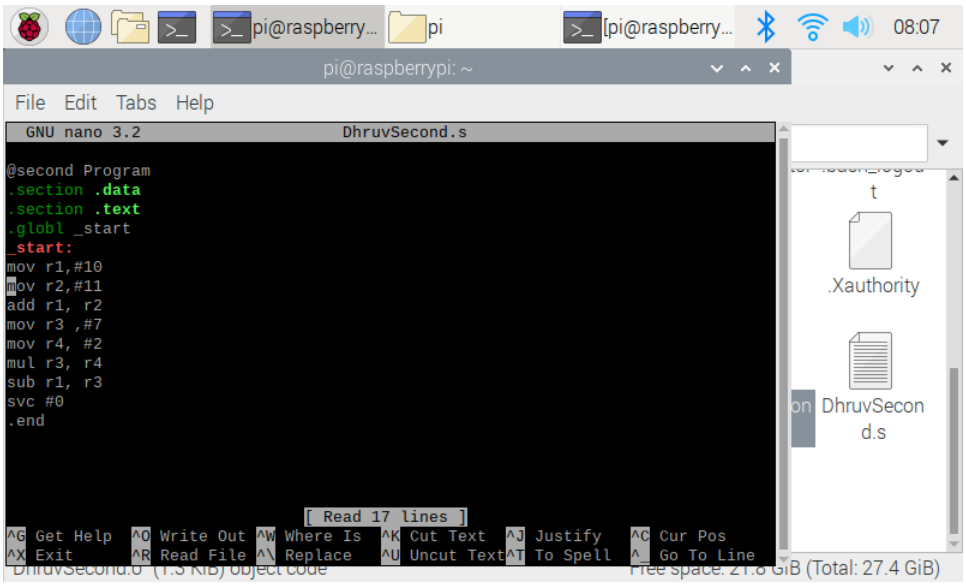
<u>Dhruv Parikh</u>
ARM Assembly Programming

In the **Part 1** for the programming,



1. We move number 5 to register r1.
2. Then subtract r1 from r1.
3. Next add r1 to r1
4. Move number 1 to register 7

In Part 2



1. We move 10 to register r1.
2. Then move 11 to register r2.
3. Then add r2 to r1.
4. Then move 7 to register r3
5. Then move 2 to register r4.
6. Then multiply r4 to r3.
7. Then subtract r3 from r1.

<u>Dhananjay Khazanchi</u>

Teamwork Basics

- What to do to get the task accomplished and the team members' satisfaction high?
  - All team members are expected to actively participate within the team and produce high quality work to keep satisfaction high.
- **Answer all the questions in the Work Norms, Facilitator Norms, Communication Norms using your own words and your own context**.
  - **Work Norms:**
    - How will work be distributed?
      - It will be distributed as evenly as possible, while playing to the strengths of team members.
    - Who will set deadlines?
      - The team will set the deadlines together with the help of the project coordinator
    - What happens if someone doesn't follow through on his/her commitment (for example, misses a deadline)?
      - The group will distribute the work amongst active member and have a discussion with the person who failed to follow through on their commitment to ensure that this does not occur again on a future instance.
    - How will the work be reviewed?
      - All team members are responsible for reviewing the work of other team members prior to submission
    - What happens if people have different opinions about the quality of the work?

- A group discussion will occur about the differing opinions, and if a consensus is not reached, there will be a majority vote to determine whether the quality is sufficient for the assignment.

- What happens if people have different work habits (e.g., some people like to get assignments done right away; others work better with the pressure of a deadline).
  - Different work habits are okay as long as assignments are done by the deadlines and are of sufficient quality.

➢ **Facilitator Norms:**

- Will you use a facilitator?
  - Yes
- How will the facilitator be chosen?
  - The facilitator will be the team coordinator for the assignment.
- Will you rotate the position?
  - Yes, it rotates with the team coordinator position
- What are the responsibilities of the facilitator?
  - The responsibilities include making sure the team does not go off track and handle any minor conflicts that does not require a full group discussion.

➢ **Communication Norms:**

- When should communication takes place and through what medium (e.g., do some people prefer to communicate through e-mail while others would rather talk on the phone)?
  - The team will communicate mainly through Slack and be present in at least two weekly meetings.

❖ As a team, select two cases out of the four mentioned in Handling Difficult Behavior. (use your own words and your own context):

➢ If one team member is not participating enough, the team will address the person regarding the lack of input. If this does not resolve the issue, the coordinator will actively ask the person to contribute by providing their opinion for each topic.

➢ If a discussion becomes too argumentative, the team will switch to a debate format, where team members will be asked to take some time, gather their thoughts

❖ When making decisions, If the team is having trouble reaching consensus, what should you do? (use your own words and your own context):

➢ Team members will provide their reasoning for their platform. Afterwards, there will be a majority vote for the final decision.

❖ What should you do if person may reach a decision more quickly than others and pressure people to move on before it is a good idea to do so?

➢ People who are pressuring others too move on quickly will be asked to slow down and provide their input when all other members have reached their own personal consensus.

❖ What happens if most people on the team want to get an "A" on the assignment, but another person decides that a "B" will be acceptable?

➢ The team will motivate the individual to try for an "A" on the assignment.

<u>Dhananjay Khazanchi</u>
ARM Assembly Programming

Part 1:
Code:

Branch: master ▾ CSC3210-Team0101 / first.s.Dhananjay

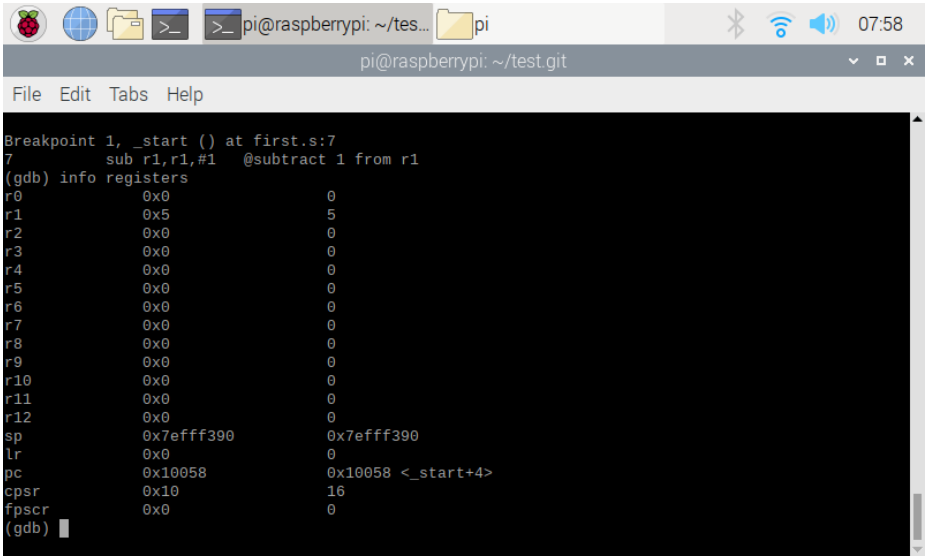
Team-0101 Create first.s.Dhananjay

1 contributor

13 lines (11 sloc) | 287 Bytes

```
1   @ first program
2    .section .data
3    .section .text
4    .globl _start
5    _start:
6     mov r1,#5      @load r1 with 5
7      sub r1,r1,#1   @subtract 1 from r1
8      add r1,r1,#4   @add 4 to r1
9
10     mov r7,#1      @Program Termination: exit syscall
11     svc #0         @Program Termination: wake kernel
12
13   .end
```

Screenshots:

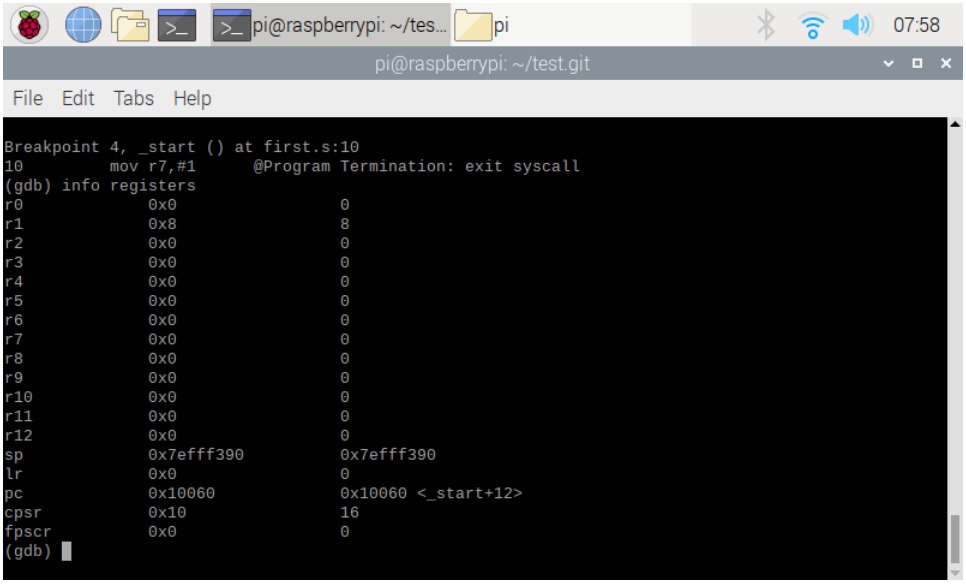


Step 1: mov r1, #5

The value of 5 (decimal) is stored within register r1.

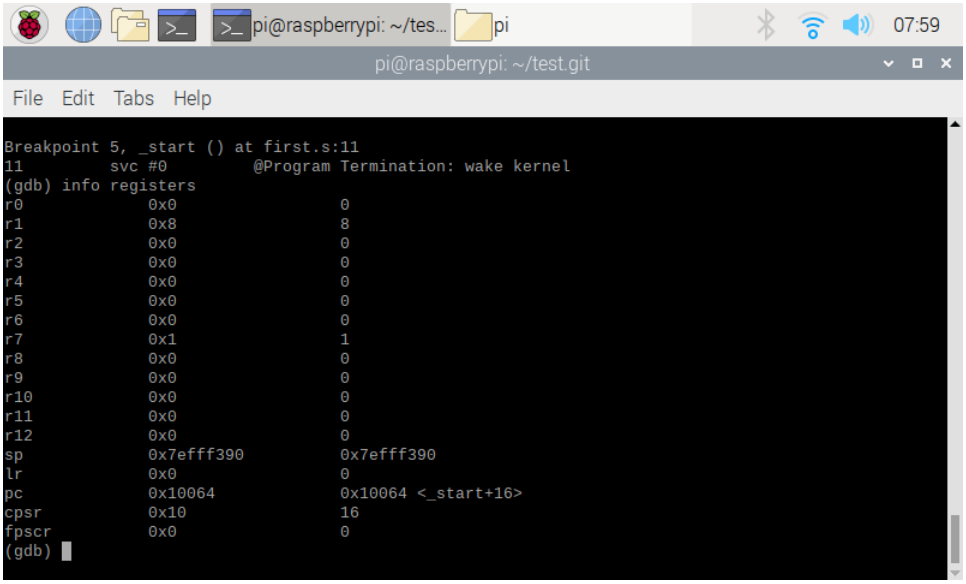
Step 2: sub r1, r1, #1

Register r1 previously had a value of 5. This instruction reads as r1 = r1 – 1, which results in r1 equaling 4.



Step 3: add r1, r1, #4

In the previous step, register r1 had a value of 4. In this step, r1 is being set equal to r1 + 4, which is 8.

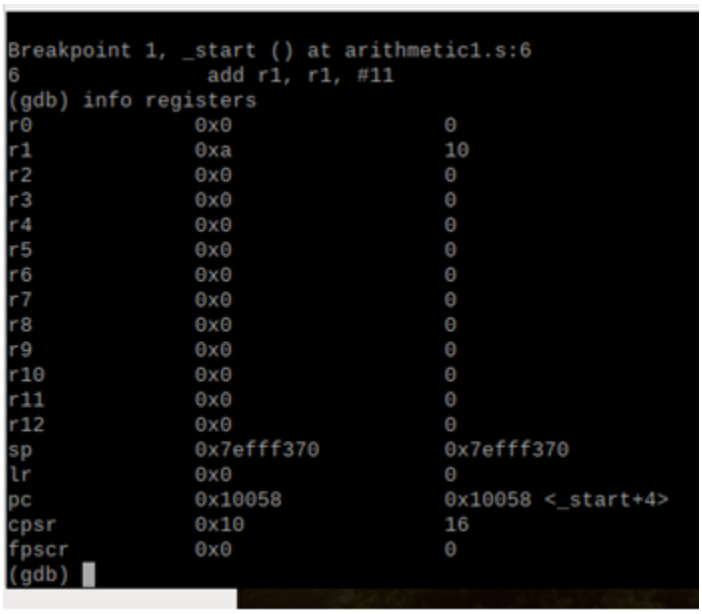


Step 4: mov r7, #1

In the previous step, r1 was set to 8. Since step 4 is dealing with register r7, r1 is unaffected by the instruction. Register r1 continues to contain the value 8, and r7 is assigned the value of 1.

Part 2:

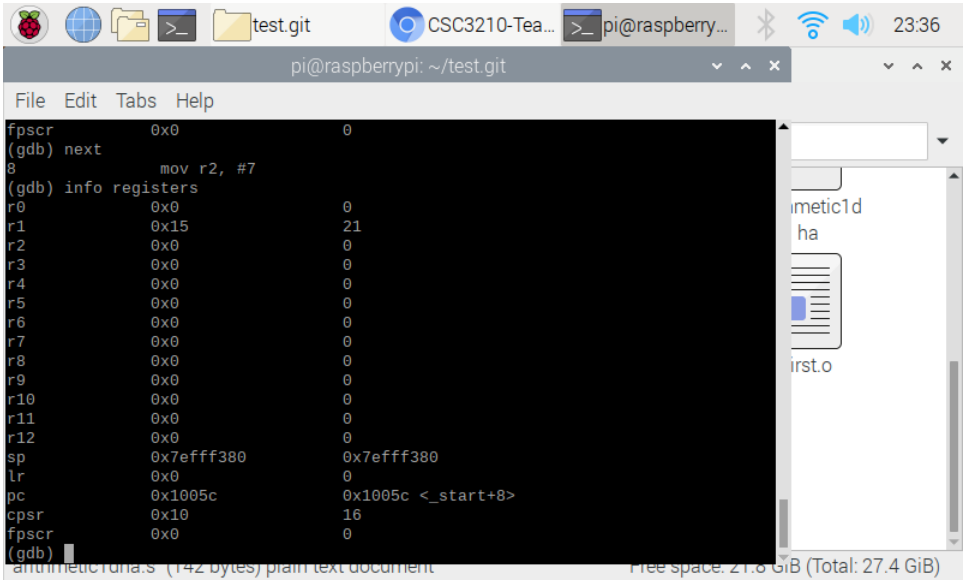
Code:



Screenshots:

Step 1: mov r1, #10

Stores the value of 10 in register r1.

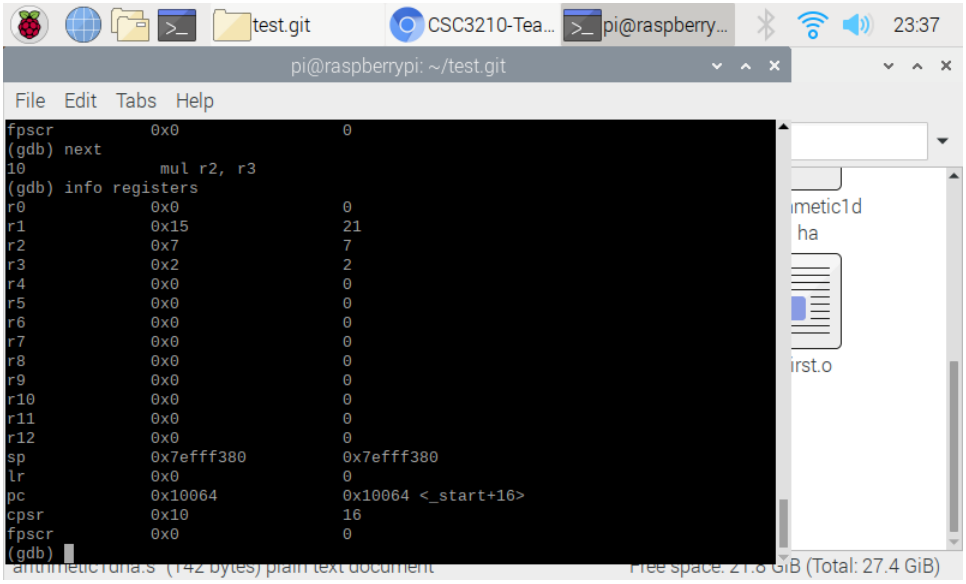


Step 2: add r1, #11

The immediate is added to the value already stored in r1, which is 10. This results in r1 becoming 21.

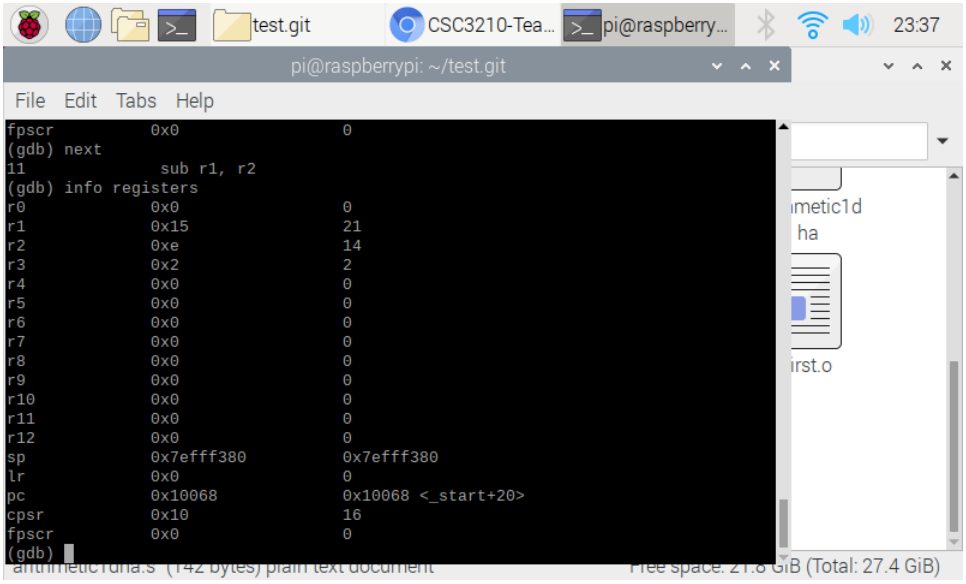
Step 3: mov r2, #7

This step results in the register r2 being set to 7 when the immediate 7 is moved into it.



Step 4: mov r3, #2

This step results in the decimal value of 2 being moved into the destination, r3



Step 5: mul r2, r3

This step takes the value previously in r2, which was 7 and multiplies r2 by the value in r3, which is 2. It then stores that value in r2, since r2 is the destination.

Step 6: sub r1, r2

In this final step, the value in r2 (14) is subtracted from the value in r1 (21). This value is stored in r1, since r1 is the destination.

Humaira Ridi

Teamwork Basics

- **What to do to get the task accomplished and the team members' satisfaction high?**
  - Deadlines will be set in order to manage time efficiently and meetings will be held to ensure ideas are contributed by every member.

- **Answer all the questions in the Work Norms, Facilitator Norms, Communication Norms using your own words and your own context.**
  - **Work Norms:**
    - How will work be distributed?
      - A member can choose to volunteer for a task and, if not, work will be distributed based on strength
    - Who will set deadlines?
      - The coordinator
    - What happens if someone doesn't follow through on his/her commitment (for example, misses a deadline)?
      - The rest of the team will have to confront that member and remind them that the grade is dependent on every member
    - How will the work be reviewed?
      - Work will be reviewed by each member in case there are mistakes present
    - What happens if people have different opinions about the quality of the work?
      - The team will have a healthy discussion on what will result in the best grade
    - What happens if people have different work habits?
      - It is fine as long as the task is finished before the deadline
  - **Facilitator Norms:**
    - Will you use a facilitator?
      - Yes
    - How will the facilitator be chosen?
      - The coordinator for that project will be the facilitator
    - Will you rotate the position?
      - Yes
    - What are the responsibilities of the facilitator?
      - Keep everyone on track and submit the final report
  - **Communication Norms:**
    - When should communication takes place and through what medium?
      - Slack, in-person or video meetings
  - **Meeting Norms:**
    - What is everyone's schedule?

Thu Vo	• M: available after 5:00PM • T: available for the whole day • W: available after 5:00PM • R: available after 11:00AM • F: available for the whole day - I usually will not be on campus on thursday and friday, but I can be on campus if you let me know beforehand.
Kirby Liu	Monday- Before/after 12:30pm-3:15pm Tuesday- Before/After 2:15pm- 5:45pm Wednesday - Before/After 12:30pm-5:00pm Thursday- 2:15pm- 5:45pm Friday- After 10am Not Available 1/28, 1/31
Humaira Ridi	M: Before 12:30pm, after 4:45pm/6:45pm T: Whole day W: Before 12:30pm, after 4:45pm/6:45pm R: Before 1pm, after 2:40pm F: Before 11am, after 11:50am
Dhruv Parikh	M - 12 pm to 2pm, 3:15 to 5:30pm, after 6:45pm T - Before 2:15 pm and after 3:30pm W - 11:00am to 1 pm, 3:15pm to 5:30pm, after 6:45pm TR - 11:00 am to 2:00pm, 3:30pm to 6pm F - I will not be on campus, but if we all decide to do something I can come.
Dhananjay Khazanchi	M - 11:00 - 2:00; 3:15 - 4:30; after 7:00 T - 11:00 - 2:15; 3:30 - 4:30; after 7:00 W - 11:00 - 2:00; 3:15 - 4:30; after 7:00 R - 12:40 - 2:15; after 4:50 F: anytime until 8:00 pm

- Should one person be responsible for coordinating meetings?
  - Everyone should discuss when to hold meetings
- Do people have a preference for when meetings are held?
  - Yes
- Where is a good place to hold meetings?
  - Meetings can be held in the library study rooms or in 55 Park Place
- What happens if people are late to a meeting?
  - As long as there is a valid reason, it should be fine
- What happens if a group member misses a meeting?
  - As long as they inform the team beforehand, it should be fine
- What if he/ she misses several meetings?
  - The member will be reminded about how meetings are crucial to the project

➢ **Consideration Norms:**

- Can people eat at meetings? smoke?
  - Eating is allowed but not smoking.
- What happens if someone is dominating the discussion?
  - Let that person know that it is important to hear other members' ideas.
- How can norms be changed if someone is not comfortable with what is going on in the team?
  - Remind that person that this is a team and majority rules.

❖ **As a team, select two cases out of the four mentioned in Handling Difficult Behavior.**

➢ If a member is too quiet, the rest of the team must take time to encourage that person contribute their ideas.

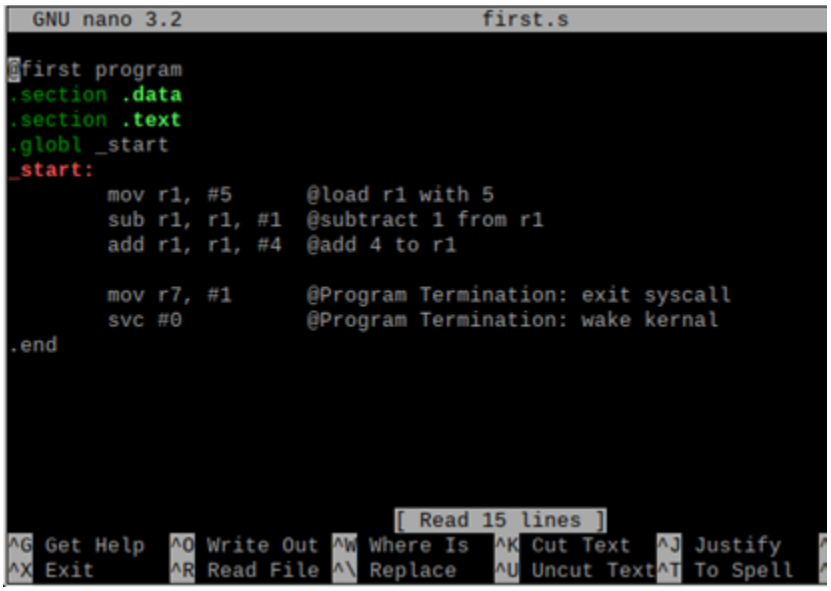
➢ If a member is getting too argumentative, he/she should be asked why they disagree with the ideas presented by the team.

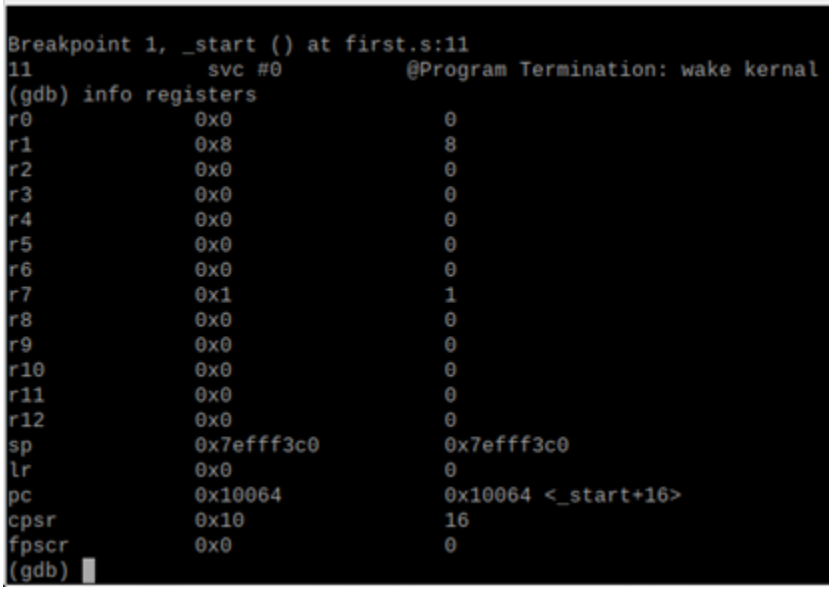
- **When making decisions, If the team is having trouble reaching consensus, what should you do?**
  - If discussion does not work, then a vote may take place.
- **What should you do if person may reach a decision more quickly than others and pressure people to move on before it is a good idea to do so?**
  - No member will be pressured to make a decision in the first place.
- **What happens if most people on the team want to get an "A" on the assignment, but another person decides that a "B" will be acceptable?**
  - We will discuss the importance of an "A" and encourage the member to change their mind.

Humaira Ridi

ARM Assembly Programming

Part 1:

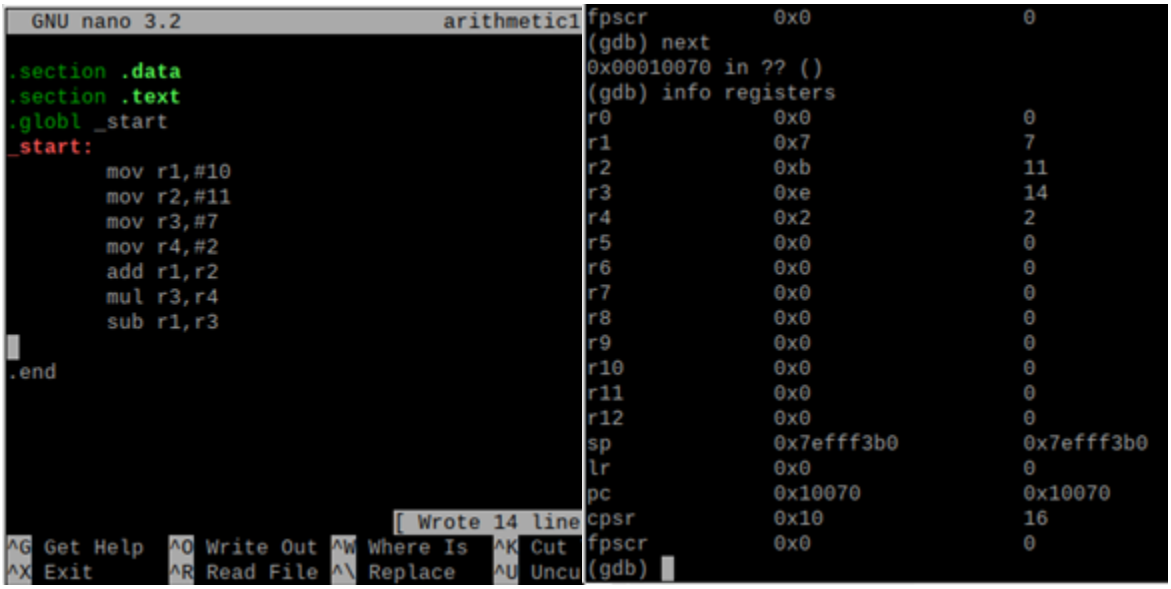




In the first line of the given code in the file "first.s", the value 5 was assigned to the register, r1. In the second line, the value 1 was subtracted from the same register, r1, making the value of the register 4. Then 4 was added

to r1 the line after that, making the value of the register 8. Finally, 1 was assigned to a different register, r7. When the registers were displayed using command “(gdb) info registers,” the values of r1 and r7 can be seen as r1 = 8 and r7 =1.

Part 2:



For part 2 of the assignment, we were instructed to create a program that calculates the expression “A=(A+B)-(C*D),” where A=10, B=11, C=7, and D=2. I began by assigning the value 10 to the register, r1. Then I assigned 11 to r2, 7 to r3 and 2 to r4. After I assigned each value to a register, I added r2 to r1, making the value in the register 21. In the next line, I multiplied the value in r4 by the value in r3; now the value of r3 is 14. Then I subtracted r3 from r1, making the value in r1 to be 7. After the registers were displayed, it showed that registers, r2 and r4 were never altered so they kept their initial values. It is also shown that the result of the expression is held in register r1, which is 7.