Network Diagram *Sprint 2*

| Activity	Predecessor	Duration
SCRUM-11: As a student, I would like to view a list of all tutors at my university, so that I can select one to help teach me in my needed course.	N/A	3 days
SCRUM-8: As a student, I would like to search for the courses I need help with on the home page, so that I can find a tutor that matches my needs.	SCRUM-11	1 day
SCRUM-9: As a student, I would like to filter my search based on hourly rate, language, and tutor rating, so that I can find a tutor that best fits my needs.	SCRUM-11	2 days
SCRUM-17: As a user, I would like to share my screen during tutoring sessions, so that answers to questions can be more personalized.	SCRUM-13	1 day
SCRUM-13: As a student, I would like to start a voice/video call with my tutor, so that we can have a live, interactive tutoring session	SCRUM-10	3 days
SCRUM-10: As a user, I would like to be able to send a private message to any other user, so that I can ask my questions/respond to	SCRUM-11	3 days

any question.		
SCRUM-12: As a user, I would like to be able to send images and files via the chat, so that I can share any necessary documents needed for the tutoring session.	SCRUM-10	1 day

Pre-Diagram
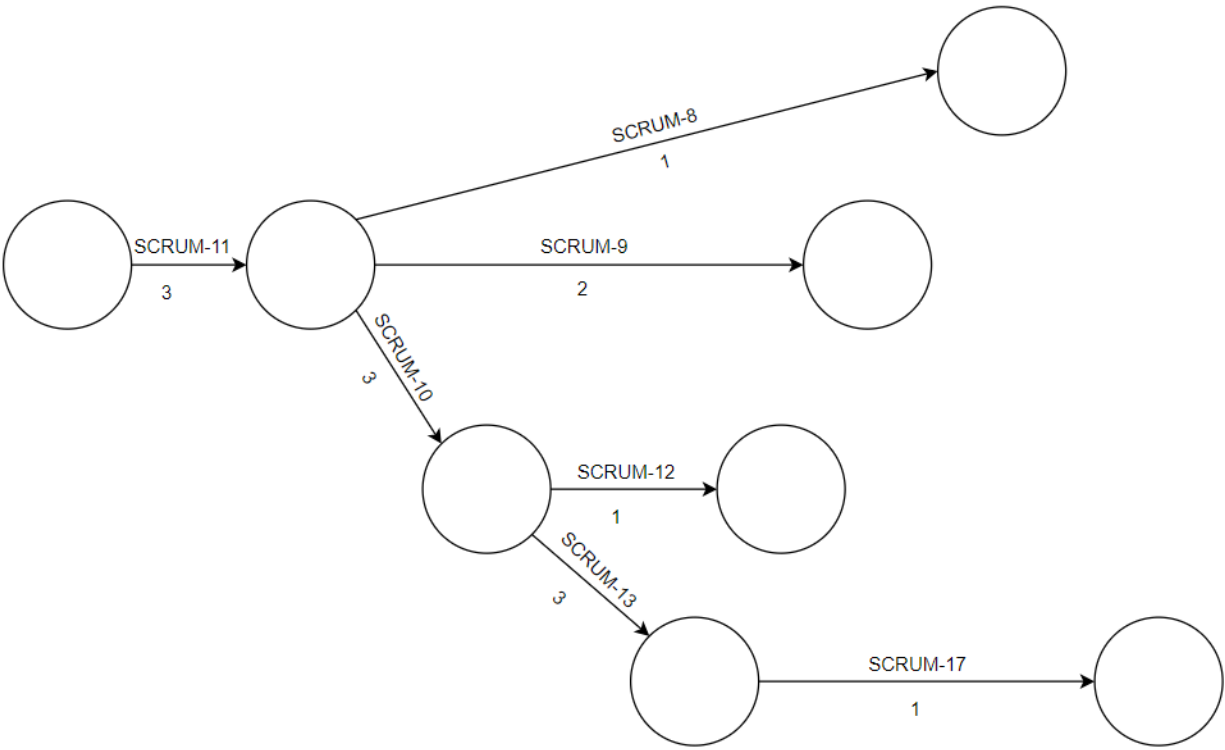
The initial diagram, including dummy nodes, before cleanup. As there are 3 hanging dummy nodes, connect them to the final stage/node.

Final Diagram
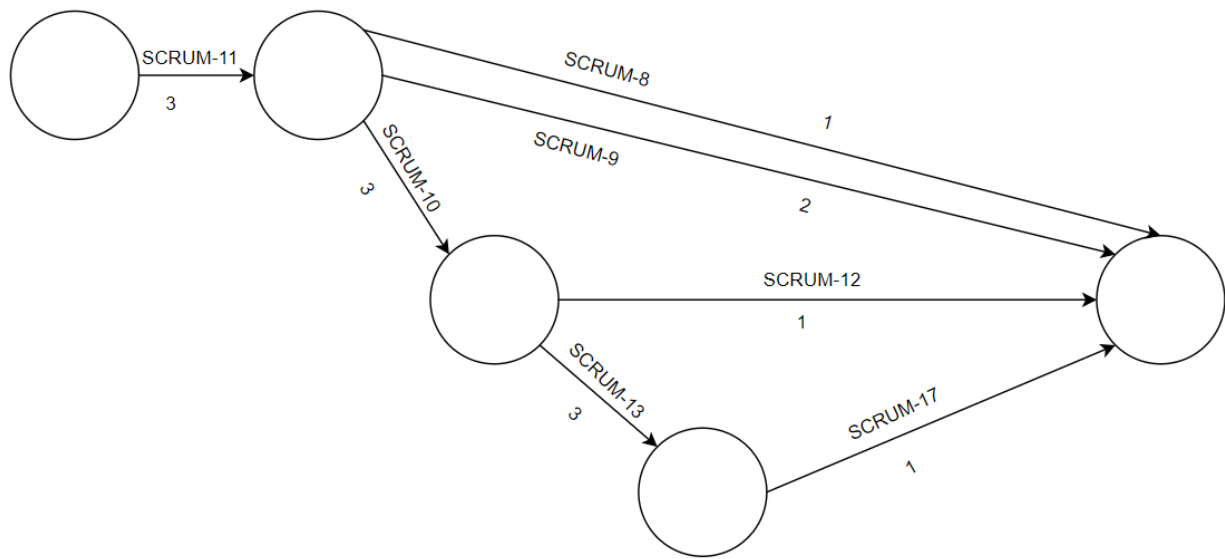
Finding Critical Path:

SCRUM-11 → SCRUM-8 = 3 + 1 = 4
SCRUM-11 → SCRUM-9 = 3 + 2 = 5
SCRUM-11 → SCRUM-10 → SCRUM-12 = 3 + 3 + 1 = 10
Critical Path: SCRUM-11 → SCRUM-13 → SCRUM-17 = 3 + 3 + 3 + 1 = 13

Conclusion

From observing the network diagram, our team was able to successfully divide up the tasks to achieve efficiency in completion. Determining the critical path allowed the team to put more focus and emphasis on completing those tasks, especially those tasks that had dependencies following them. As well, by seeing the dependencies, it allowed our team to select the team members who would be more available on the project earlier in the sprint to work on tasks who had more dependencies from them.

For example, a team member would not be as available in the latter half of the sprint and would be primarily working on their tasks in the first half, thus they were assigned SCRUM-11. That way they did not have to wait for other team members in order to complete their task, and that task was completed early so that the team members whose tasks depended on SCRUM-11 would not be waiting.

As a team member had personal family circumstances, there was one task that could not fully be completed on time (SCRUM-9). The network diagram allowed the team to mitigate the situation, by assigning that team member the tasks that had

no dependencies from it (SCRUM-8 and SCRUM-9) and were not on the critical path, so that the other tasks were able to be fully completed if the team member, due to their situation, could not complete their tasks.

Thus, utilizing the knowledge of the dependencies and critical path allowed the team to successfully complete all but one of the sprint and associated user stories on time.