Network Diagram:

LADA Sprint 2 - Task Dependency Network
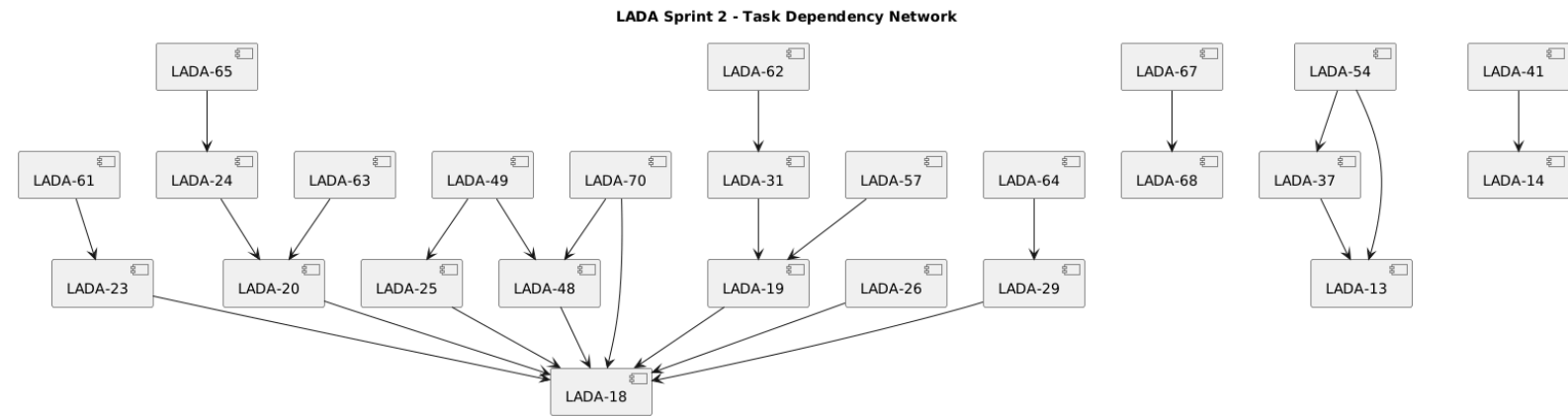
Code with names (from PlantUML, since the names didn't fit into the chart. To view the same chart but with actual ticket names, please see **sprint2-network-diagram.png** included in the doc/sprint2 folder):

```
@startuml
title LADA Sprint 2 - Task Dependency Network

' Define nodes (tasks)
[LADA-61 CLIENT Earn points for posts] --> [LADA-23 CORE Earn points for posts]
[LADA-62 CLIENT Earn points for liked posts] --> [LADA-31 CORE Earn points for liked posts]
[LADA-24 CORE Earn points for comments] --> [LADA-20 CORE Comment on travel posts]
[LADA-48 CLIENT Create, share and delete travel posts] --> [LADA-18 CORE Create, share and delete
travel posts]
[LADA-49 CLIENT Add tags to posts] --> [LADA-25 CORE Add tags to posts]
[LADA-49 CLIENT Add tags to posts] --> [LADA-48 CLIENT Create, share and delete travel posts]
[LADA-57 CLIENT Like and dislike travel posts] --> [LADA-19 CORE Like and dislike travel posts]
[LADA-67 CLIENT Log out] --> [LADA-68 CORE Logout of account]
[LADA-26 CORE Search posts by tags, name, country] --> [LADA-18 CORE Create, share and delete travel
posts]
[LADA-31 CORE Earn points for liked posts] --> [LADA-19 CORE Like and dislike travel posts]
[LADA-23 CORE Earn points for posts] --> [LADA-18 CORE Create, share and delete travel posts]
[LADA-29 CORE Sort posts] --> [LADA-18 CORE Create, share and delete travel posts]
[LADA-19 CORE Like and dislike travel posts] --> [LADA-18 CORE Create, share and delete travel posts]
[LADA-54 Mark visited countries on a map - connect core and client] --> [LADA-37 CLIENT Mark visited
countries on a map]
[LADA-54 Mark visited countries on a map - connect core and client] --> [LADA-13 CORE Mark visited
countries on a map]
[LADA-37 CLIENT Mark visited countries on a map] --> [LADA-13 CORE Mark visited countries on a map]
[LADA-41 CLIENT Show percentage of countries visited] --> [LADA-14 CORE Show percentage of countries
visited]
[LADA-25 CORE Add tags to posts] --> [LADA-18 CORE Create, share and delete travel posts]
[LADA-20 CORE Comment on travel posts] --> [LADA-18 CORE Create, share and delete travel posts]
[LADA-64 CLIENT Sort posts] --> [LADA-29 CORE Sort posts]
[LADA-63 CLIENT Comment on travel posts] --> [LADA-20 CORE Comment on travel posts]
[LADA-65 CLIENT Earn points for comments] --> [LADA-24 CORE Earn points for comments]
[LADA-70 Connect core and client for social media posts] --> [LADA-18 CORE Create, share and delete
travel posts]
[LADA-70 Connect core and client for social media posts] --> [LADA-48 CLIENT Create, share and delete
travel posts]
@enduml
```

The **critical path is LADA-18 → LADA-20 → LADA-24 → LADA-65**, with a total estimated effort of 9 story points. With story names, this means the critical path is **[Core] Create, share and delete travel posts →** **[Core] Comment on travel posts → [Core] Earn points for comments → [Client] Earn points for comments**.

To keep the sprint on schedule, we made sure that LADA-18 was completed ASAP since everything depends on it in this path, as well as in other paths. We also assigned the three tickets (LADA-18, LADA-20, LADA-24) to the three different Core developers, so that the team can work on these issues simultaneously, then update their code accordingly. Also, this allows different developers to work on different tasks for other paths, so that those don't get delayed either. For example, while developer A worked on the first ticket in this path (LADA-18) and was assigned the last ticket in another path, developer B, who was assigned the next ticket (LADA-20) in the first path, implemented the first ticket in the second path. This way, no one is ever just waiting for someone else, everyone is always working on something. We also used daily stand-ups to track progress and resolve blockers early.

Unfortunately, LADA-65 was not claimed by anyone during the sprint since it is a Client-type ticket, and, as mentioned in other documents, Client/frontend tickets will take longer to complete and we are aware of this. However, the frontend tickets rely heavily on the backend functionality being in place for integration purposes, so we feel comfortable being ahead on core work. On the diagram, the only part that 'went wrong' was the very last ticket in this path, and we learned that it is important to start working on the core tickets early on, allowing extra time to be left to implement the client tickets since they rely on the backend implementation. During this sprint, all developers on the team were also very busy with other courses and midterms, which slowed down the progress of this sprint and caused us to have delays. We are hoping that these issues have a higher chance of being avoided in the next sprint since midterms are over and we have more time to focus on this project.