**Meeting 2 Agenda**

**Date:** 18 Oct 2024  
**Group:** Yellow++

**1. Graph Structures for City Build**

* Discuss graph representation for city layout.
* How different components (e.g., buildings, roads) interconnect.
* Node class + graph class
* Going with adjacency Matrix
* Char with each building
* Base connection is 1
* Node is Building
* Train is a fix for two non-connection nodes
* Bus stops random
* At least one Bus stop in Residential areas
* Add multiple adjacency matrix
* Make assumption each citizen has a car

**2. Singleton Government**

* Review Singleton pattern implementation for the government entity.
* Explore its role in city management.
* Make a singleton

**3. Observer Government**

* Discuss how the Observer pattern can notify citizens of government actions/decisions.
* Define concrete classes for notifications (e.g., transport changes, city events).
* Road Quality + City

**4. Activity Diagram – More Detail**

* Review detailed activity diagram for government and public interaction processes.
* Clarify roles and interactions with city infrastructure.

**5. Business Address**

* Clarify and finalize the format and usage of business addresses within the city structure.
* Business Adress to citizen. Maybe use or not

**6. Iterator to a Visitor**

* Discuss the Iterator pattern in relation to the Visitor pattern.
* How will it be used to traverse city data structures for various operations?

**7. State Discussion**

* Examine the application of the State pattern in the context of city infrastructure.
* How does it affect different services (e.g., power, transport)?
* Severity of state

**8. Transport Connection**

* Discuss transport-related connections and routes.
* Daniel to present transport models and connection strategy.

**9. Memento Discussion**

* Explore the Memento pattern for undoing or restoring city states.
* How will this be integrated into city management systems?
* Add score to each class??
* Deep copy

**10. Divide Work**

* Allocate final work responsibilities among group members:
  + **Amadeus** – Abstract Factory
  + **Saskia** – Government
  + **Stefan** – Transport
  + **Me** – Composite + Visitor + Mediator
  + **Raven** – Observer
  + **Daniel** – Memento
  + **Johan** – Transport

**11. GitHub Actions**

* Look into doing it for bonus marks
* Research everyone
* Unit test + pool requests + Building(stop if fail)

**12. Frontend**

* Do demo main
* If time, add react + Json save +MangoDB