Evaluate and apply software design and development methodology (e.g., structured or object-oriented), and be able to create appropriate industry standard design notation such as UML and agile user story management.

To evaluate and apply the correct software design and development methodology and create appropriate industry-standard design notation for my project, I applied both structured design and object-oriented design (OOD) methodologies. My team used structured design to model the data and flow of user actions, as shown in the Entity-Relationship Diagram, flow diagram and the flowchart. (Kloda, 2025a; Kloda, 2025b; Kloda, 2025c) It allowed us to structure user interactions that match system’s process.

We used OOD for frontend and backend leveraging classes and objects to ensure modular and reusable components. I used draw.io to create UML class diagrams, which visualize the system’s architecture and components, showing object interactions. (Kloda, 2025d; Kloda, 2025e)

During planning phase of our project we created user stories and epics, which we broke down into tasks during each sprint. (Kloda, 2025f) Throughout each sprint, we tracked progress by creating tasks in Jira which were assigned to team members. I also created user persona this helped development process by ensuring that our features were user-centric.(Kloda, 2025g)

# References

Kloda (2025). [online] github. Available at: https://github.com/Jkloda/LOJuliaKloda/blob/main/Assets/ER\_Diagram.png [Accessed 11 Apr. 2025].

Kloda (2025). [online] github. Available at: https://github.com/Jkloda/LOJuliaKloda/blob/main/Assets/Flowchart.png [Accessed 5 May 2025].

Kloda (2025). [online] github. Available at: https://github.com/Jkloda/LOJuliaKloda/blob/main/Assets/FlowDiagram.png [Accessed 26 Apr. 2025].

Kloda (2025). [online] github. Available at: https://github.com/Jkloda/LOJuliaKloda/blob/main/Assets/UML1.png [Accessed 21 Apr. 2025].

‌Kloda (2025). [online] github. Available at: https://github.com/Jkloda/LOJuliaKloda/blob/main/Assets/UML2.png [Accessed 2 May 2025].

‌Kloda (2025). [online] github. Available at: https://github.com/Jkloda/LOJuliaKloda/blob/main/Assets/UserStories.png [Accessed 28 Apr. 2025].

‌Kloda (2025). [online] github. Available at: https://github.com/Jkloda/LOJuliaKloda/blob/main/BuyerPersona.docx [Accessed 9 May 2025].