**Software Engineering**

**Phase nr. 3**

Epoka digital library software is an essential tool that allows students, faculty, and researchers to access digital resources, including academic journals, books, research papers, and multimedia files, from a central database. The design and modeling of a university digital library software involve various stages, including planning, analysis, design, implementation, and maintenance.

**Planning:**

The planning phase involves defining the goals and objectives of the digital library software. The team responsible for the project will need to conduct extensive research to identify the requirements of the software, including the types of resources to be included, user needs, and the expected usage volume.

**Analysis:**

During the analysis stage, the team will work to identify the system's requirements, constraints, and dependencies. The team will define the data architecture, including data models, data flow diagrams, and data dictionaries. The analysis stage is crucial to ensure the digital library software can meet the users' needs while remaining scalable and maintainable. We will also cooperate with university’s librarian who can give us access with data that we need, as we have worked with him on another similar project as well.

**Design:**

The design stage involves creating the software architecture and user interface. Our team is working on creating a software design that includes the data structure, system architecture, and user interface. The design should support user needs, scalability, and maintainability.

**Implementation:**

The implementation stage involves coding and testing the software. We have selected a programming language and will work on the code from scratch.

**Maintenance:**

In the agile model, the maintenance stage is an ongoing process that emphasizes continuous delivery and improvement. Agile maintenance involves monitoring the software's performance and user feedback regularly, identifying any issues or bugs, and prioritizing them based on their severity and impact on the system. Our team then incorporates these issues into the backlog, plans them into upcoming sprints, and allocates resources accordingly.Agile maintenance also involves continuous integration and deployment, where the team releases updated versions of the software frequently. Overall, agile maintenance is a proactive and iterative process that aims to ensure the software remains secure, stable, and effective while meeting the evolving needs of users and stakeholders.

In summary, the design and modeling of Epoka’s digital library software require careful planning, analysis, design, implementation, and maintenance. By following a structured approach, we can create a software solution that meets the users' needs while remaining scalable and maintainable over time.