**(3)-PROTOTYPING METHODOLOGISTS (section 1)**

1.Waterfall model - This model is basically a traditional and linear approach to software development. It consists of sequential phases, where each phase must be completed before moving on to the next. The phases usually include requirements gathering, design, implementation, testing, deployment, and maintenance. Once a phase is completed is difficult to go back and make changes, making it less flexible for accommodating changing requirements.

2. Agile – In the context of prototyping, Agile refers to an interactive and incremental software development approach that emphasizes flexibility, collaboration, and customer feedback. Agile methodologies focus on delivering working software in small, frequent increments, which allows for continuous improvements and adjustments based on user feedback. When combining Agile with prototyping, the development process involves creating and refining prototypes in short cycles, typically called sprints or iterations. Each iteration aims to build on the previous one, incorporating user feedback and evolving the prototype until it meets the desired requirements and functionality.

The key principle of Agile that apply to prototyping include:

A. Customer Collaboration: Active involvement of stakeholders and end-users throughout the development process to ensure that the prototype aligns with their needs and expectations.

B. Incremental Development: Prototyping is done small, manageable chunks, allowing for faster validation and improvements.

C. Responding to Change: Agile methods embrace change, so if new insights or requirements emerge during the prototyping process, they can be incorporated without disrupting the entire development cycle.

D. Self-organizing Teams: Cross functional teams collaborate and take collective responsibility for the prototype’s success, promoting better communication and efficiency.

3. Scrum: Scrum is an agile development methodology used in the development of Software based on an iterative and incremental processes. Scrum is adaptable, fast, flexible and effective agile framework that is designed to deliver value to the customer throughout the development of the project.

The primary objective of Scrum is to satisfy the customer’s need through an environment of transparency in communication, collective responsibility and continuous progress. The development starts from a general idea of ​​what needs to be built, elaborating a list of characteristics ordered by priority (product backlog) that the owner of the product wants to obtain.