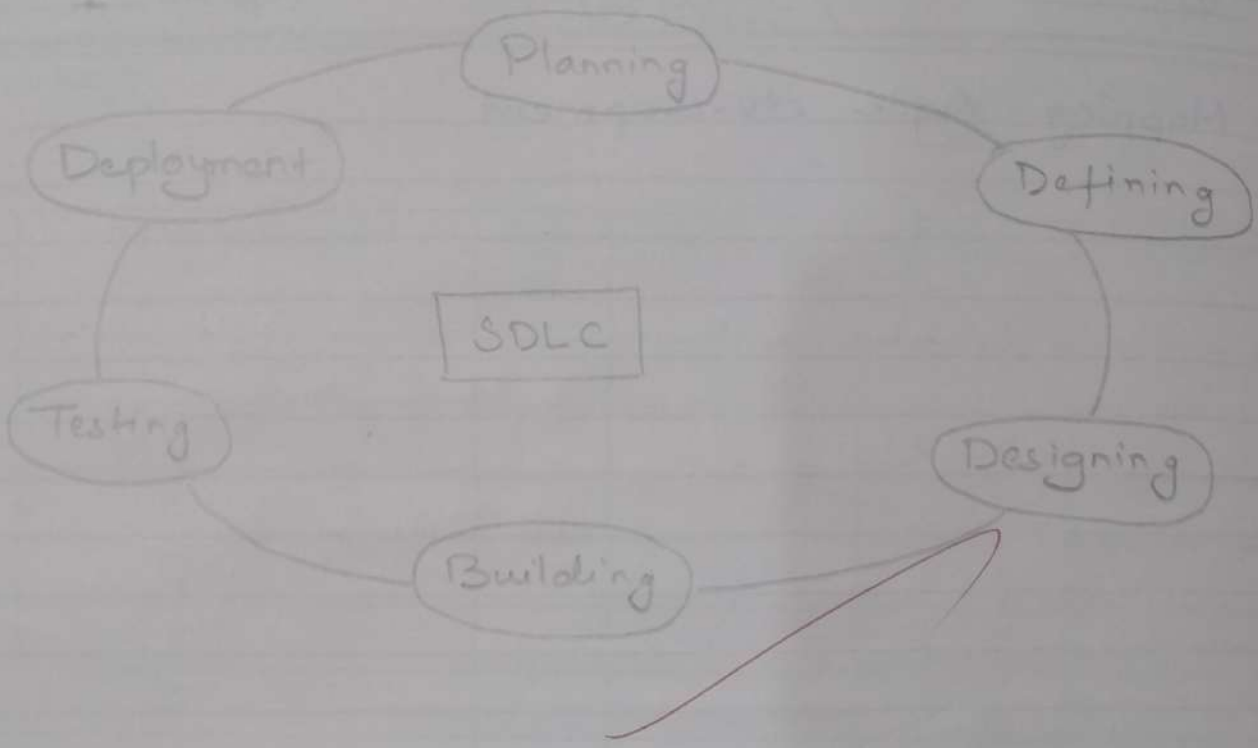
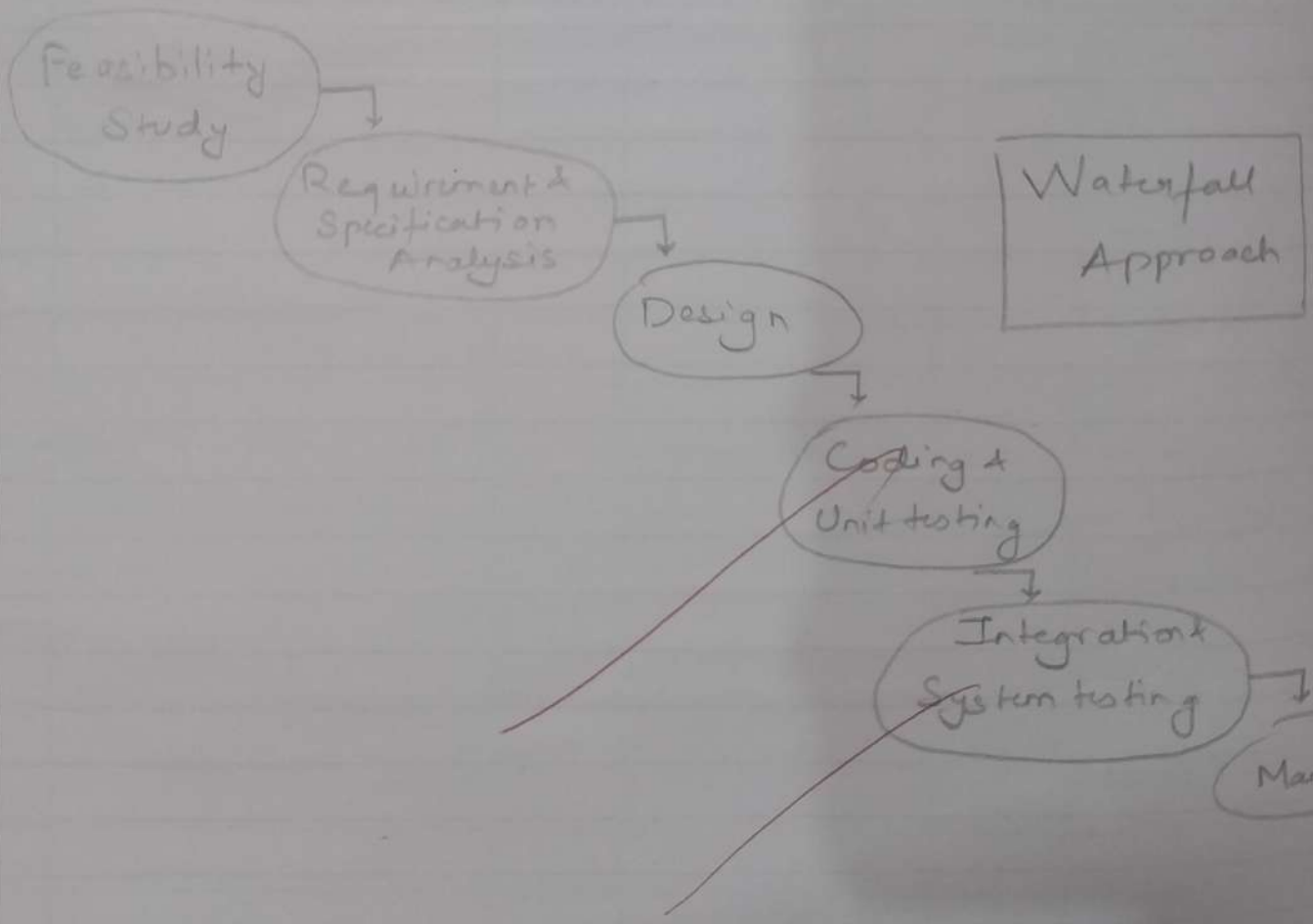

Planning
Defining
Designing
Building
Testing
Deployment
SDLC


Feasibility Study
Requirement & Specification Analysis
Design
Coding & Unit testing
Integration & System testing
Maintenance
Waterfall Approach

Date 17/1/24

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AIM: Mapping agile development approach with Software development.

* SDLC:

→ SDLC stands for software development life cycle.
→ It depicts a systematic process that defines the stage involved in developing and delivering high-quality software products
→ It provides a structured approach to ensure projects are completed on time, within budget, and meet user requirements
→ It mainly has the following stages:
(i) Planning (ii) Defining (iii) Design
(iv) Building (v) Testing (vi) Deployment.

* Waterfall Model →

- It is a sequential Model, i.e., phase flow in a linear, downward fashion, like a waterfall.
- It follows a strict progression i.e., each phase must be completed before the next begin.
- It defines a clear structure and documentation of our software development life cycle, i.e., it emphasize detailed planning and documentation at each stage.
- It is well-suited for projects with close and clear requirements beforehand.

* Need for Agile Approach (Disadvantages of

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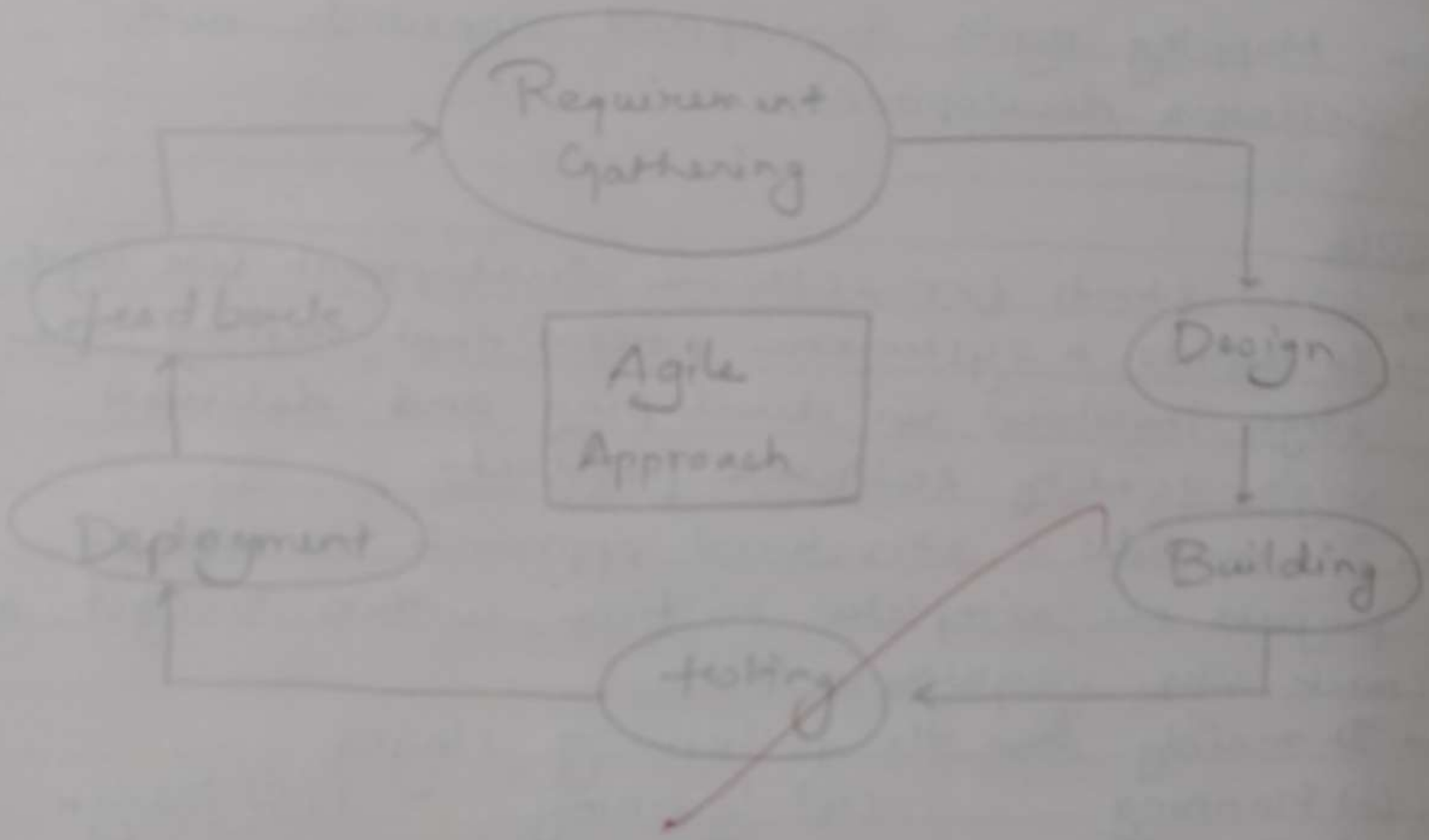
Requirement Gathering
Design
Building
Testing
Deployment
Feedback
Agile Approach

Waterfall model) →

- Waterfall model is inflexible to change in the requirements
- There is a risk of late-stage issue in the waterfall approach due to its sequential nature.
- The user involvement is limited until the later phases.
- potential for delays, due to the lengthy testing phase, arises in the waterfall approach.

* Agile Approach →

- It is a non-sequential approach and focuses on continuous improvement and development of the software product.
- It follows both iterative and incremental development i.e., it provides short sprints with frequent deliverables.

* Difference between Agile and Waterfall Methodology →

Agile	Waterfall
• Client input is required throughout the product development	• Client input is required only after completing each phase.
• Changes can be made on any stage of the cycle.	• Changes can't be made after the completion of a phase.

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Date

Expt. No. Page No. 3.

• It is useful in large and complex projects.	• It is useful for small project development.
• It is known for its flexibility.	• It is known for its rigidity.
• It is a non-sequential approach (iterative and incremental)	• It is sequential approach software development.
• It can be quite complex and difficult to analyse.	• It is very simple and easy-to-understand.

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