12.05.2023

Tutorial - 01

Date No

Planning an Information System Project

Answer all the questions.

1. What is mean by feasibility study?

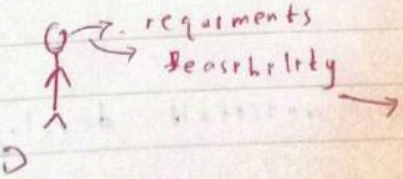
* A preliminary exploration of a proposed project or undertaking to determine its merits and viability.

2. What is the importance of having a feasibility study report in a project?

* if the project has many issue we can identify it
* helps decision makers to determine the success or failure of a proposed project or investment.
* Understand all aspects of the project feasibility
* determine the viability of the project.
* Identify obstacles and challenges.
* ~~Dcter~~ Define alternative solutions to obstacles.
* Identify the project risk.
* We can go for good project plan.

3. Briefly describe the four (04) types of techniques used in feasibility study

* technical feasibility → we can knowledge.
  financial feasibility → Pay salary
  ~~market~~ schedule feasibility. → Can be do the project on time (Time management)
  Operational feasibility. → we can do that project. probably stakeholders will buy our projects.



17.05.2023

Tutorial-03

Project methodologies → feasibility report

1. waterfall
2. Parallel
3. V-model
4. Agile.
5. Plat

1. What are the project management phases consist of when creating project plans?

* ~~conception and~~ Initiation
  Phase 1 : Project initiation
  Phase 2 : Project Planning → After planning we doing
  Phase 3 : Project Execution.
  Phase 4 : Project ~~Performance~~ Controlling and Monitoring → CEO, project the check are stock holders
  Phase 5 : ~~Project close~~ inclosure

2. Briefly describe each of following software development methodologies.

* Waterfall → We shouldn't use hige project. We know 100% we you this one.
* Parallel → testing over
* V-Model → Analysis ⇒ implementation
* Rapid Application Development
* Agile Development

3. Compare and differences between waterfall development and V-Model development.

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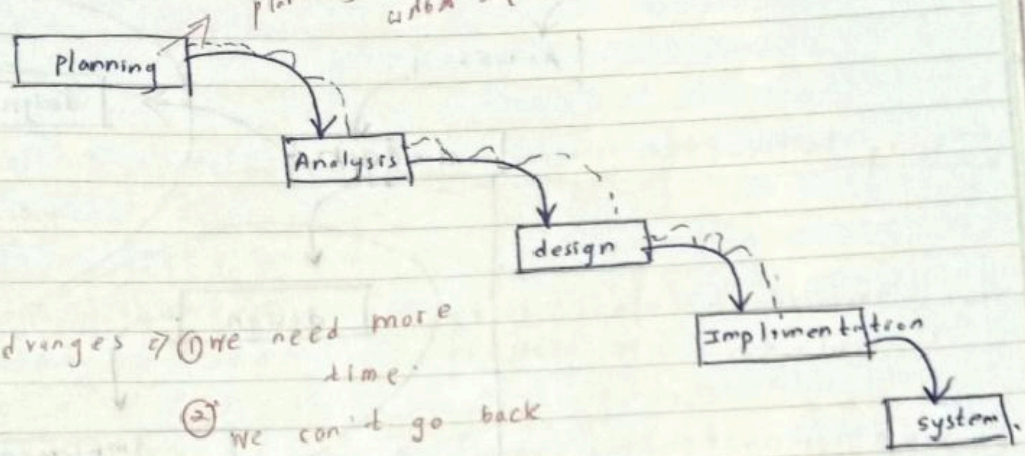
Waterfall (write the chart and what are the advantages and disadvantages)



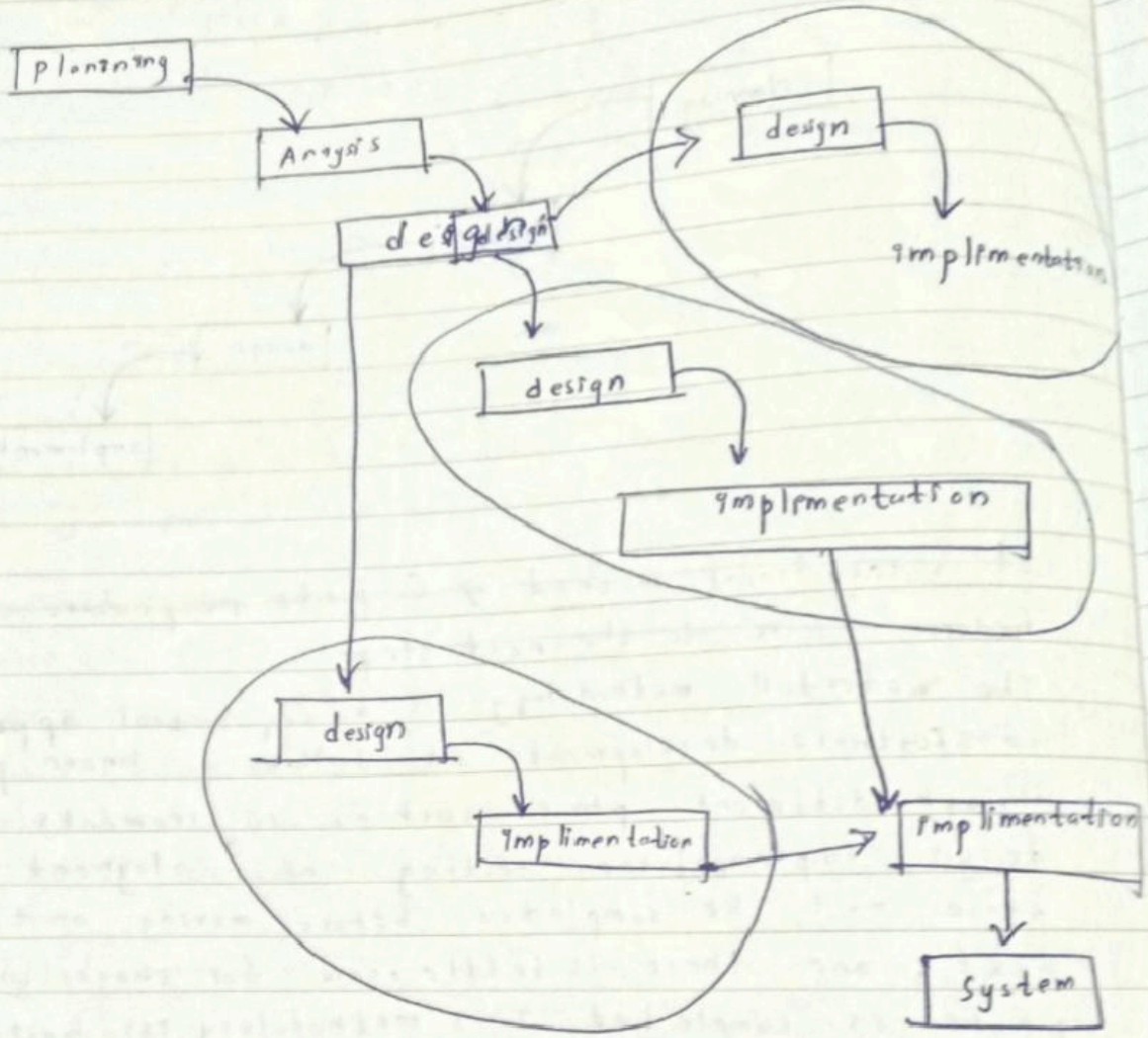
disadvanges ⇒ ① We need more time.

② We can't go back

~~It is sequattional method → Complete respective steps. before move to the next step~~

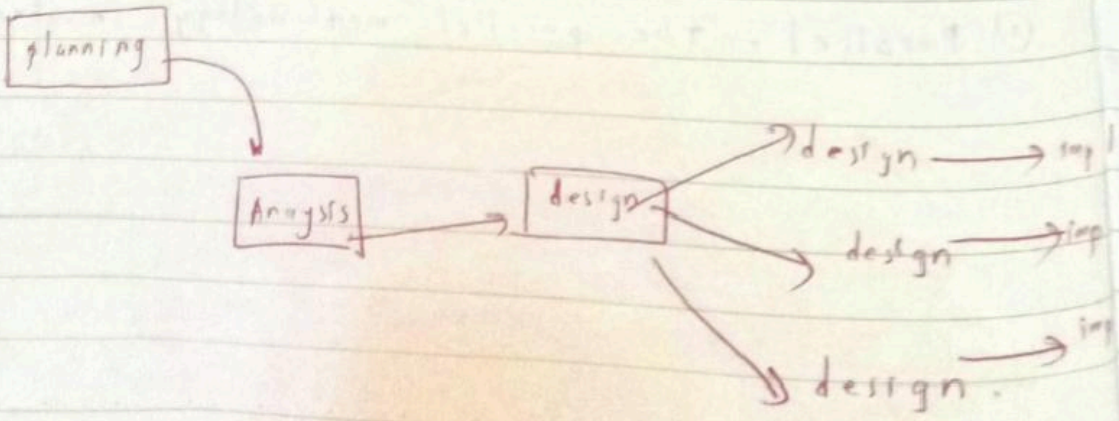
The waterfall methodology is a sequential approach to software development. It follows a linear progression through different phases such as requirements gathering, design, implementation, testing and deployment. Each phase must be completed before moving on to the next, and there is little room for chages once a phase is completed. This methodology is best suited for projects with well-defined requirements and stable environment.

② Parallel - The parallel methodology involves dividing.



Advantages.

Disadvantages.



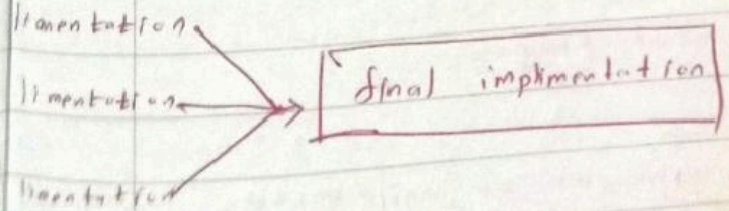
we can simply divide designning stage into 3 parts and we can each an every design part impliment

Advantages of parallel processing.

* solve larger problems in a short point of time
* It has massive data storage and quick data computations
* using computer resources on the wide-Area Network (WAN) or even on the internet
*

Disadvantages of parallel processing

* Better cooling technologies are required in case of clusters
* Power consumption is huge by the multi-Core architectures
*



V model and waterfall model common Can't go to backward

02.06.2023

Tutorials

① What are the differences between Traditional (waterfall) and Agile (Iterative) approaches.

Traditional Software Development	Agile Software Development
① It is used to develop simple software	① It is used to develop complicated software
② It follows a linear organization structure	② It follows an iterative organizational structure
③ It provides less security	③ It provides high security
④ It supports a fixed development model	④ It supports a changeable development model
⑤ Cost is less	⑤ Cost is very high

② What are the key components of the Scrum framework in Agile methodology?

(i) Product owner → Product backlog

(ii) Scrum Master → We following principles of agile mode

(iii) Development Team

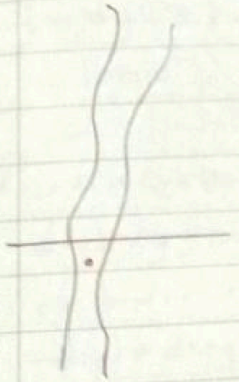
(iv) Sprint

(v) Sprint Planning
(vi) Daily Scrum
(vii) Sprint Review
(viii) Sprint Retropective
(ix) product Backlog →
(x) Sprint Backlog

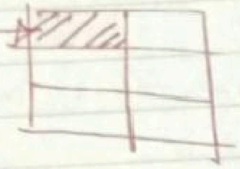
Answer

① Software project maintain [illegible] 2 [illegible] .

Waterfall



Iterative (Agile).

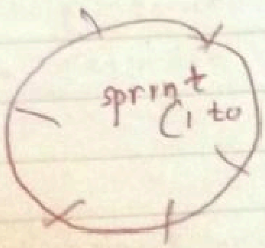


Enter project we divide small potional.

- All do testings .
- get client feedback improve our project.

- After the design we
- Come derelopment
- go back.

- project [illegible] testing, development [illegible]



2 to 4 weeks

(1 to 3 week time period.

[illegible] planning, implement [illegible]

, Sequentional ([illegible])
- leanear (line [illegible]),
- [illegible] face [illegible]

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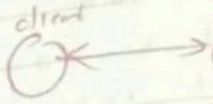
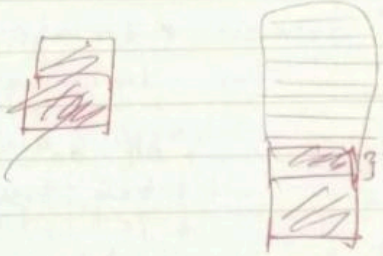
We can't change requements

It all above textbook



encough colaboration.

* We write all the paper
* We don't use documentation use software!
* get feedback is very difficult.
* Always get client feedback
* We don't like changes.
* We emplosized lost of changes.
* minimum client involedment.



we go to final

sprint goal is shippable product
usertble.

Sprints planning, ② sprint ③

~~Sprint Review~~ (Daily scrum → Called daily) = product [illegible]

Sprint Review = product [illegible]

Sprint Restrospective = [illegible] Sprint [illegible] } only team members

09.06.2023.

① What is Agile (software develop) methodology. and what are its key principles and values?

Values

* individuals and interactions
working software.
customer collaboration
responding to change.

Agile methodology is an iterative and incremental approach to project management and software development. flexible, We change lot

② Colour the correct box.

(i) which software development methodology follows a sequential and linear approach => waterfall

(ii) In which methodology are project requirement and plans (We never change plans) expected to remain relatively stable throughout the project? => Agile

waterfall

(iii) which methodology breaks the project into small, incremental iterations or sprints ⇒ Agile.

(iv) Which methodology embraces change and accommodates evolving requirements ⇒ Agile

(v) ~~embraces chang~~ involves less direct stakeholder involvement until the final stages of the project ⇒ waterfall

(vi) emphasizes active stakeholder collaboration throughout the project ⇒ Agile

(vii) prioritizes comprehensive documentation and smooth transition between project phases ⇒ ~~Agile~~ waterfall.

(viii) has a hierarchical team structure with clear roles and responsibilities ⇒ waterfall.

(ix) places more emphasis on working software over comprehensive documentation ⇒ Agile

(x) Which methodology offers greater flexibility, adaptability and stakeholder involvement ⇒ Agile.

Agile ⇒ ~~me~~ cross functionally

Agile Manifester.

Date No

(1) principle = (12)

Sprint review
{Customer in meeting

(1) simply
(2)

16.06.2023.

{Agile

Requirement Gathering

(01) (a) What is a requirement? → behaviour and characteristics

* Requirement can vary depending on the context, such as software requirement, Project requirements or educational requirements among others.

(02) Describe the 4 types categories of requirements gathering techniques.

(i) Functional Requirement → what the system or product should do to fulfill its intended purpose. They describe the specific functions, features and capabilities that the system should possess. It focus on the system's behavior and specify the expected inputs, processing and outputs.

exp user authentication
data validation
report generation
search functionality

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(II) Non functional Requirements: ⇒ qualities, constraints and characteristics that the system should possess, rather than its specific functionalities
These requirements address aspects such as performance, security, reliability, usability, scalability, maintainability, and compatibility. It define how the system should behave or perform, rather than what it should do

ex: response time
system availability
data privacy
user interface responsiveness.

(III) Domain Requirements ⇒ specific features and constraints that are unique to a particular application domain or industry.

ex: healthcare domain.

(IV) Stakholder Requirements ⇒ derived from the needs, expectations and concerns of the system's stakeholders.

(01) ordering something

requirement ⇒ client [illegible] need [illegible]

(02) (I) interview ⇒ 2 typs < face to face / online interview.

(II) documents [illegible] ⇒ in interview ⇒ [illegible]

(IV) ~~real time~~ opsavation ⇒ real time opsavation.

(III) queoning us ⇒ requirement collect.

23 · 06 · 2021

Tutorial - 07

1. Define the main steps of Requirement Analysis Process?
2. What are the techniques of Requirement Analysis Process?

Answers

1)
1. Requirement Elicitation
2. Requirement Documentation
3. Requirement Analysis
4. Requirement Validation
5. Requirement Management.
6. Requirement Communication
7. Requirement Priorotization
8. Requirent Verification and validation.
9. Requirent Traceability.

2) Interviews

Surveys and questionnaires

Workshops and brainstorming

observations

Prototyping

③ You have to develop an application to help primary school children learn about colours and shapes. List down the techniques that you'll employ for requirement analysis?

(i) Interviews ÷ Conduct interviews with primary school teachers and educators to gather their insights and understanding of how children learn colors and shapes.

(ii) Surveys and questionnaires ÷ surveys are used to collect data from a large number of stakeholders.

(iii) Workshops and Brainstorming ÷ Workshops involve

SAD MCQ.

① Which step in the requirement analysis process involves gathering requirements from various sources?

* Elicitation (requement gathering)

② What is the purpose of the prioritization step in requirement analysis?

* To determine the order of addressing requirements

③ Which technique involves creating a preliminary version of the system together feedback from stakeholders?

* Prototyping

(4) which step in the requirement analysis process involves assessing the technical feasibility of the requirements?

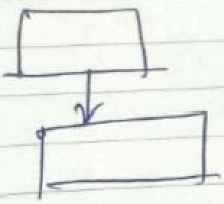
→ Analysis

(5) observation → [illegible] end users and analysis [illegible] !

(6) analysis
→ [illegible]

(7) requirement gathering → draw a diagram.

Data flow diagrams.



(8) Ensure the requirement accurately represent stakeholder's needs.

validation → user's need correctly identify.

(9) Workshops and brainstorming

(10) To maintain traceability between requirements and related artifacts.
[illegible]

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System Analysis and Design. Tutorial - 08

Questions

① What is a use case? user and system and flow interaction documentlized
② Define the steps of use case methodology.
③ Define the context of the basic use case description template
④ Write a use case for the following example.

User requirements;

As a user, I want to register on an online shopping website to buy some accessories

Answers

① It is commonly used in software development, systems engineering and project management to describe interactions between a system and its users or other system. It is a document.

② Indistify the users type.
What are the user requenment.
Select one user and define their goal.
Register and find option.
Coustor's alternate goals.
what are systems and another users requements

(3) User case name.

Brief description

Actors → not person.

Basic flow. ▷

Alternate flows (sometimes called extensions).

▷ register ...

pre - conditions :- username ... account ...

post - conditions - ~~path~~ register ... ...

log ... site ... log ...

Other stakeholders
System / sub - system
special requirements
} addition information.

(4)