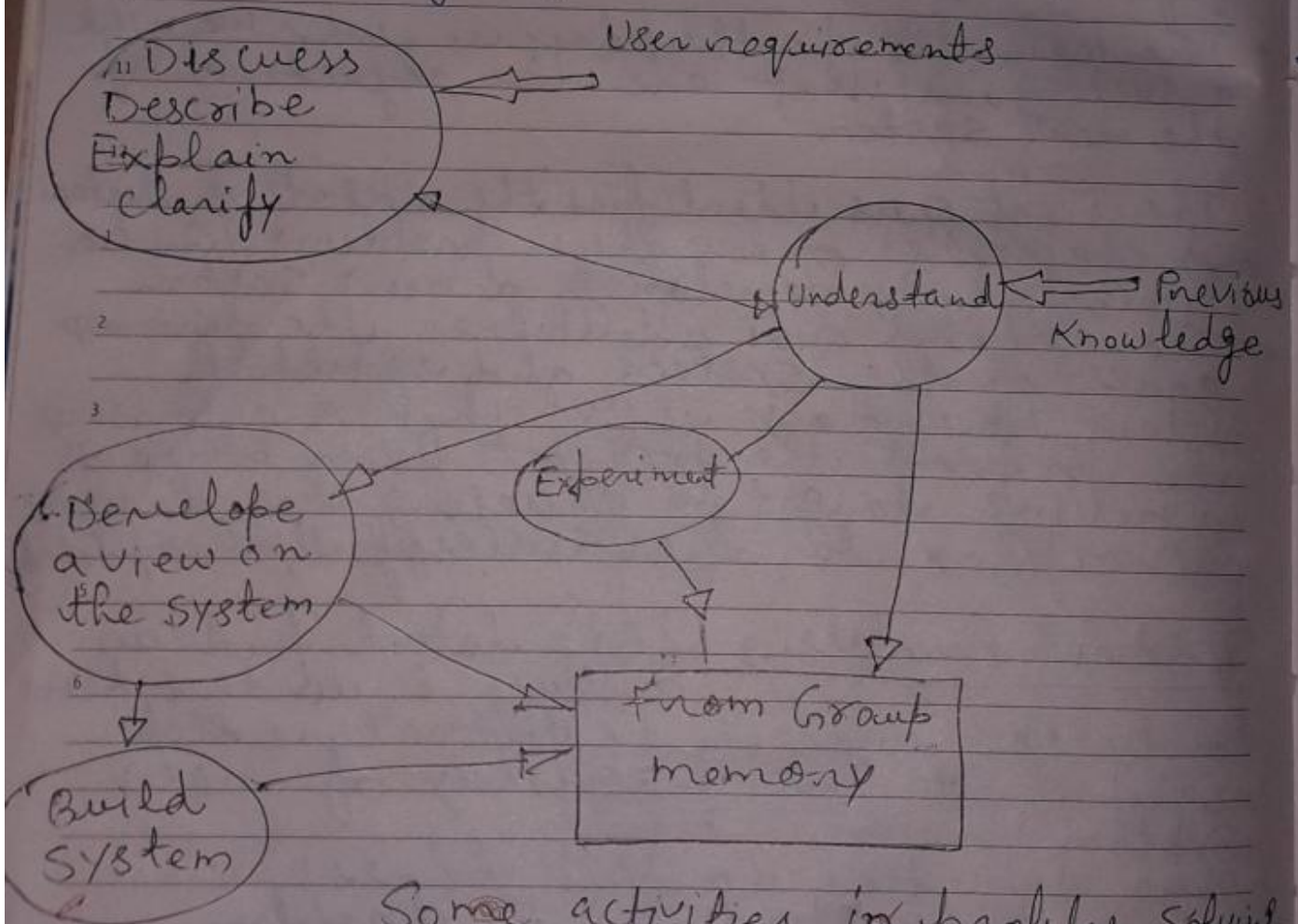


the existing problem & the strength & weakness of the system.

- It include identifying the overall implication and benefits of the new system for the entire organization.



Some activities in problem solving

- Feasibility Analysis - There are 6 types of Feasibility Analysis

1) Technical Feasibility - It determines the system can be developed & implemented using existing technology or new technology (as required). Hardware, software and network requirements are also determined.

2) Economic Feasibility - In this analysis evaluates the financial aspects of the project by performing a cost benefits analysis and accessing both tangible & intangible here benefits of the system.

3) Operational Feasibility - It is determined, there will be any problems in implementing the system in its operational environment and access how the system fits with the strategic business plan & strategic information plan of the organization.

4) Schedule Feasibility - It is the time it will take to complete the project taking into consideration available resources & additional resources required if any.

5) Legal Feasibility - It takes into account factors such as as Copyrights



## Patents and State regulations

- 6) Strategic Feasibility - It looks the ability of the system to increase market share, give the firm a competitive advantage in the marketplace, and enhance the productivity of the knowledge workers.

System requirements - In this phase system specifications are identified by asking who, what, where when & how.

- Some Qns addressed during this phase
  - 1. Who needs the system and for what purposes?
  - 2. What are the needs of the system?
  - 3. Who will receive system pre-delivered?
  - 4. How or in what type of format should the output be delivered?
  - 5. Who are the users?
  - 6. What are the maintenance requirements of the system?

The objectives established in the problem definition phase.

## System Design and Programming -

- System design is the determination of the processes and data that are required by a new system.
- There are two types of design exist. These are -

- 1.) Logical design
- 2.) Physical design

1) Logical design :- It identifies the records and relationships to be handled by the system.

- It focuses on the reasoning by breaking down the system into subsystems, each subsystem into smaller subsystems, until the process cannot be further repeated.
- It establishes the relationships among various subsystems, the records and variables in the subsystems and inter-relationships among variables and subsystems.

2) Physical Design :- Physical design proceeds after logical design is completed.

- Physical design involves three main activities. These are to know the technology required to implement the system.
- The design is rigorous and reliable, and to provide detailed specifications and system objectives.
- It has two steps :-
  - An initial board-level design
  - A detailed design:
 It starts only when board solution has been chosen. In this phase, database and program modules are designed and



details user procedures are documented.

### \* System development :-

- 10. The individual system components are built during the development period, programs are written & tested end user interface developed & tried by user.
- 11. The database is initialized with data.

### System Testing & Implementation :-

- 12. It is most difficult task in system development, it requires creativity, persistence and a thorough understanding of the systems.
- 13. It involves thoroughly probing the system to ensure that its performance match system requirements and meets the expectations of end-users.

There are 3 types of testing :

- 1) Unit Testing
- 2) System testing
- 3) Acceptance testing

In unit testing a system is viewed a collection of program & each program is individually tested without assurance that the system is free errors.

• In System testing it is performed as the entire system to ensure that its components Units (System) will Function effectively when brought together as a system.

• In acceptance testing it is developers & Users test the system under actual or simulated operation conditions to ensure that it is acceptable to users.

Implementation :- • A good system proceeds when it is implemented without affecting the routine operations of the organisation.

• This requires careful planning & coordination.

• In case the system is new implementation is quite straightforward. the system is replacing an existing one implementation becomes critical. In such a case there are 4 types of Conversion Strategy :-

- Parallel Conversion
- Direct Cutover
- A pilot Study
- A phased Conversion

System Maintenance :- • It ensures that continues to meet growing and changing needs of users through system modifications which it requires.



7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

- It starts after the system becomes operational and should last as long as the system is in use.
- It is the key to continuing to derive the maximum benefits from a system.
- User requests for new features or for enhancement of existing facilities, changing business climate, facilities, technology, or new information technologies in the organisation can accelerate system maintenance.
- Maintenance cost usually increase with time and when it is more expensive than to develop a new one. The organisations most decide to abandon the existing system and build a new system.
- It is basically formed for 3 reasons:
  - To correct errors.
  - To keep system current
  - To improve the systems

Prototyping - It is the approach developed swiftly where systems are undergone a complete analysis & specification, The system i.e. Prototype.

Types of prototypes - There are 2 types of prototypes used:

- 1.) Discardable Prototype
- 2.) Operational Prototype

Discardable Prototype :- I Identify user needs.

Develop a prototype using one or more prototyping tools.

There are two types of prototyping

1.) Integrated application generators (IAG)

- It is a prewritten software system capable of processing all of the desired features in the new system (menus, reports, screens, database and so on).

2) Prototyping tool kits :-

- It includes separate S/W systems each capable of producing a portion of the desired system features.

- Determine if the prototype is acceptable
- Code the operational system
- Test the operational system
- Determine if the operational system is acceptable
- Use the operational system



• It is a team coined by James  
 maintain, Computer constant & out here  
 for developing life cycle intent  
 to produce systems quickly with  
 sacrificing quality.

• It is an integrated set of strategic  
 methodologies and tools that exists  
 in an overall framework called  
 information engineering.

Essential ingredients of RAD:

RAD requires

essential ingredients. These are

- 1) management
- 2) People
- 3) Methodologies
- 4) Tools

Management :- It is particularly  
 management.

• It should be experimenters. How  
 use new methodologies.

• Management should be fully see  
 of RAD & provided a works  
 that makes the activity as enj  
 as possible.

2) People :- RAD recognised the  
 that can be achieved

The use several specialized teams.

There can be teams for requirements planning, construction, user design, user interface and output. Member of these teams are experts in methodology and tools that are required to perform the specialized tasks.

3) Methodologies RAD life cycle which consists of 4 phases.

- 1. Requirement Planning, User design,
- 2. Construction, output.

These Phases like the SDLC. It is reflect the Systems approach

4) Tools: Tools consist of fourthly aided generation language & Computer facilitated engineering tools that facilitate prototyping and Code generation language.

END USER COMPUTING: End User

Computing is a situation in which the end user is not involved in decision support system is involved in the design, development and maintenance and use of the system.