

1. Preliminary Investigation/Project Plan

- 1.1. Introduction/ Background
- 1.2. Overview of the current system
- 1.3. Problem/Opportunity statement
- 1.4. Objectives of the project
- 1.5. **Feasibility study**
- 1.6. Significance **and beneficiaries** of the project
- 1.7. Scope of the proposed system
- 1.8. Estimated budget, tool and resource requirements
- 1.9. Identifying the tasks (WBS) and time frame (Gantt/PERT/CPM chart)
- 1.10. Risk management
- 1.11. Communication plan

2. System Analysis

2.1. Determining System Requirements

2.1.1. Detail overview of the existing system

2.1.2. Problems encountered by the existing system

(This can be identified by conducting interview, observation, document review such as existing forms, existing system reports, organization objectives, etc.)

2.1.3. Requirement definition

(Read system books for the details)

2.1.3.1. Functional requirements

(For example the system will maintain a database about employee records, generate weekly report, etc.)

2.1.3.2. Non-functional requirements

(For example, security (the system is accessed through a password with encryption), availability (the system is designed on the web to accessible in 24 hours), learnability (uses graphical interface for easy use, and learnability within a specified training time etc.), scalability (supports n number of customers/users /clients concurrently with x amount of data per a given period etc.)

2.2. Structuring System Requirements

(Read materials to construct the DFD. It shows flow of information and information /Source/Destination/store in the system)

2.2.1. Process modeling

2.2.1.1. Context DFDs

(Create the dataflow diagrams using a tool of choice that depict how the systems processes interact with each other)

2.2.1.2. Logical DFDs of the New System

2.2.2. Logic Modeling of the new system

(This is a description of data processing that converts raw data into meaningful information. For example, generating frequency table from raw data is one example but it may be complex process for bigger system. Read system books how to model your process with decision table or tree) you can use structured English or Decision tree or Decision table

2.2.3. Conceptual Data Modeling of the new system

(This is the data store for your system process. Here you identify the main entities, their relationships and attributes. For example, student is composed of name, age sex, etc., of attributes, its related to course which in turn is related to an instructor who works at department owning a collection of courses etc.)

2.2.3.1. *Identifying Entity Types and attributes*

(Identifying Attribute data types, domain, keys, relationship degrees and names/types among entities)

2.2.3.2. *ER modeling*

3. System Design

3.1. Database design

3.1.1. Logical database design

3.1.2. Physical database design

3.2. Interface design

3.3. Forms and reports Design

4. System implementation

4.1. Application development

4.2. Testing

4.3. Installation

4.4. Evaluation

5. [System support and maintenance]

5.1. System support

5.2. Maintenance

6. Conclusion and Recommendation

7. References

NOTE:

- While this is the content (list of topics) to cover, you need to include, a cover page, table of contents, and Appendix (as appropriate).

- You can use *C#/Java/* or another programming language you are familiar with for the interface design.