Prepare a short report on the following in the context of System Analysis and Design:

1. **Finding a Problem:**
   In system analysis and design the analyst find out the problem by going through the organizational or the system's goal and objectives. The problem is identified when the activity is insufficient or not aiding to the achievement to predefined goals. The problem is then defined. This activity involves breaking the total development process in to smaller activities or phases that the actual task may be done in a smooth manner. In order that a successful system may be designed, developed and implemented, there is a great need and importance of defining a problem, so that the solution may be ascertained accordingly.The problem is defined with a single statement followed by a brief description of the problem with additional dependent and independent problems. The problem is recognized by conducting various activities such as observations, interviews and document analysis of the users. The information gathered through such activities helps to pinpoint the problem and areas of improvements in the system. The analyst analyses these information and gives firm identification of the problem.

2. **Justifying a solution:**
   After identifying a problem the analyst seeks about the every possible solutions. The issues that are encountered are followed with objectives. We might not tend to noticce this at first glance but every problem is followed by an objective which acts as the solution of the problem. The possible solutions are then further analyzed to find the best suited ones. The solution is inspected with different requirements and limitations. Similarly the limitations set boundary to the extent of the solution. Budget constraints and available resources i.e. human resources, area of development, etc. are some limitations of the problem. In addition to these different diagram such as network diagrams, scheduling diagram, etc.

3. **Evaluating the proposal:**
   After the justification of all the possible solutions, proposals are drafted for every solution. The proposal contains details about the requirements and limitations of the solutions and other elements such as budget, resources and scheduling for each of the drafts.While evaluating the proposal one must always keep in mind to analyse thoroughly the limiations and key points to problem solving techniques. The analyst goes through each of these proposals and evaluates on different grounds like time and cost efficiency, possibility of attaining the organizational goals, practical in terms of resources and

investment return. After evaluating the proposal on these bases the analyst selects the best possible proposal as solution for the problem in the hand.

4. **Feasibility Analysis:**
   Feasibility analysis refers to the applicability or possibility of the implementation the given proposal. After evaluating the pros and cons of each of the proposal they must go through the test whether the project is actually executable or not. Feasibility includes different criterions as scheduling, level of expertise of the personnel in the organization, amount of investment the organization can provide, the demand of the specified project in the market, community trends, demographic, etc. The analyst should look at the proposal through different windows like socio-economic condition of the community, the demographic to which the project is targeted to, availability of human resources, qualifications of the employees, the time that can be invested in the completion of the project and finally financial limitations and returns. Majorly the feasibility can be divided into the following:
   - Technical feasibility
   - Legal feasibility
   - Operational feasibility
   - Scheduling feasibility
   - Economic feasibility

5. **Preparing the statement of user requirements:**
   Any system is successful if the users are satisfied. The user requirement specifications specifies what the user need from the system. The statement of user requirements includes the data from the interviews with the users. Then these data are analyzed and the system is directed to develop as per these specifications. The user might be lay audience who are new to the system so the analyst should keep that in mind and keep the user interface as simplified as possible. The age, gender and overall demographic of the end users should be thoroughly studied and the product development must be done accordingly. To prepare the statement of user requirements, interviews, observations and document analysis must be done with the users.