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| **Key Concepts** | **Explore concepts' significance and relevance** | **Establish relevance, make sense and meaning -Find real-life contexts** | **Establish relevance, make sense and meaning -Find interdisciplinary connections** | **Engage in critical thinking** | **Technology, tools and techniques** | **Plan project management** | **Project specification and sketch** |
| The software requirements describe the features and functionalities of the desired system. User’s expectation from the software are conveyed by the Requirements. This is necessary because without this, ambiguity could fall in place with respect to the requirements being obvious or hidden, known or unknown.  It is a four step process,which include:-  -Feasibility Study  -Requirement Gathering  -Software Requirement Specification  -Software Requirement Validation | Incomplete or improper completion of Requirements analysis can give rise to an undesired project and could end up being unacceptable by the user or it simply may not be able to serve the purpose for which it was made in the first place.  **1.** All four steps of the process are necessary. None alone would be enough. For example the software being feasible alone does not suffice for it being up to date with the user’s expectations from it. We need the other steps to find out about the user’s requirement and our status on being able to serve.  **2.** Also, if There is mis-coordination between everyone involved in the project, it could lead to misunderstanding in the initial phases and could lead up to disagreements at the end.  **3.** The client and the developer must meet frequently to check on the status and they should both be open minded enough to coordinate otherwise the client’s early demand could lead to unrealistic timeline fix-ups.  **4.** In real scenario, client may propose on adding additional features to the software at the end. | Requirements analysis helps to understand, interpret, classify, and organize the software requirements in order to assess the feasibility, completeness, and consistency of the requirements. Various other tasks performed using requirements analysis in real world are listed below:-  **1.** To resolve and avoid conflicts due to ambiguity in inferred expectations.  **2.** To determine what is actually needed in terms of resources and functions to convert requirements into an actual product.  **3.** To realize the reason for development of the software  **4.** To develop an analysis model to analyse the software requirements. This is then used to formulate what the software should do and how it should work. | **1.** Recorded user experience.  **2.** project management.  **3.** Software Quality assurance (SQA).  **4.** documentation | Critical thinking is characterized by: purpose, point of view, data, concepts, assumptions, implications, and conclusions. These characteristics map directly to requirements analysis.  This technique is very useful in the case of requirements analysis as it helps in simplifying the decision making phase in case where confusion arises between two alternatives such as which platform or tools must be most effective. | development tools include:-  **1.** [Compiler](https://en.wikipedia.org/wiki/Compiler).  **2.** [Debugger](https://en.wikipedia.org/wiki/Debugger).  **3.** interpreter  **4.** [Modelling](https://en.wikipedia.org/wiki/UML_tools).  **5.** [IDE](https://en.wikipedia.org/wiki/Integrated_development_environment).  **6.** [Testing](https://en.wikipedia.org/wiki/Category:Software_testing_tools).  **7.** [Computer Aided Software Engineering](https://en.wikipedia.org/wiki/Computer_Aided_Software_Engineering) (CASE) tools.  **8.** [Database Management Systems](https://en.wikipedia.org/wiki/Database_Management_System) (DBMS).  **9.** [Fourth-generation programming languages](https://en.wikipedia.org/wiki/Fourth-generation_programming_language).  **10.** Code generators.  **11.** Object-oriented techniques.  **12.** GUI tools  **13.** static code analysis. | The requirement analysis has been completed along with the SRS document and log-in page along with the feasibility report as immediate deliverables. PISE-PBL Sub Project 3 will be form September 25-28. | As mentioned above.  ---------do-------- |