

Principles of software engineering



Beam's second law Prototyping (significantly) reduces requirement and design errors, especially for user interfaces. (L 3) Davis' law The value of a model depends on the view taken, but none is best for all purposes. (1_4) The first software development methodology will be the Waterfall Model, the second software methodology will be one of your own choosing provided that it is not the Agile Methodology nor the Rational Unified Process (RUP or UP).

For both the software development methodologies do the following: 1 .

Describe each law in your own words. Illustrate with a practical example.

Arks] Glass Law: Glass Law states that the " Requirement deficiencies are the prime source of project failures , He says that collecting the requirements of a project is the first step which leads to complete the project successfully. Robert Glass made several researches and investigated the failed projects and concluded the above statement. Example: Consider the luggage handling system for ' Hydrated airport' , the requirements are incomplete and they are not useful. So in effect to recover the mistake they built three different luggage handling systems , one each for wow major airlines and the third one for all other airlines.

Beam's First Law: Beam's first law states that " Errors are most frequent during the requirement and design activities and are the more expensive then later they are removed. Generally errors are made while collecting the requirements and developing a project. Consider two major airlines , Beam's first law has most frequent errors during the requirement and design . The failures caused by incomplete or badly managed requirements. Beam's second Law: Beam's second law states that , prototyping reduces requirement and design errors.

Consider a project which has many errors and it causes a project failure .
Beam's second law reduces requirement and design errors. Davit's Law:
Modeling is used extensively to either represent an actual or a planned system. As stated before , models may be mechanical , hydraulic , electrical , graphic or arithmetic in nature . Models are very useful to describe systems they are an intellectual concept , but can be transformed in a visible representation , model study the static structure of the system objects use the logical structure of the data. . Your first task is to describe each software development methodology Leary and completely in your own words. You may use diagrams, examples or ML to help you do this. + 8 marks] Waterfall Model: The waterfall model is a sequential development approach, in which development is seen as flowing steadily downwards (like a waterfall) through the phases of requirements like analysis, design , implementation , testing , integration and maintenance.

Basic principles of waterfall model are : * Project is divided into sequential phases, with some over lap and kickbacks acceptable between phases. * Emphasis is on planning , time schedules , target dates . Gadgets and implementation of an entire system at one time. The waterfall model is a traditional engineering approach applied to software engineering. It has been widely blamed for several large scale government projects which are running over budget.