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Answer:1:

Modelling:

- ★ A model is an abstract representation of a system that enables us to answer question about ~~the~~ the system.
- ★ Models are useful when dealing with system that are too large, too small, too complicated or too expensive to experience firsthand.
- ★ Models also allow us to visualize and understand system that either no longer exist or that are only claimed to exist.
- ★ Object oriented method combine the application domain and solution domain modelling activities into one. The application domain is first modelled as a set of objects and relationships. This model is then used by the system to represent the real-world concepts it manipulates.

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Problem Solving

* In its simplest form the software engineering method includes five steps:

- * Formulate the Problem
- * Analyze the Problem
- * Search for solutions
- * Decide on the appropriate solution
- * Specify the solution

* software engineering is not algorithmic. It requires experimentation, the reuse of pattern solutions and the incremental evolution of the system toward a solution that is acceptable to the client.

* Object oriented software development typically include six development activities: requirement elicitation, analysis, system design, object design, implementation and Testing.

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Modelling Important in Software Engineering:

Model are forms of description often adopted in software development. They are abstractions use to represent and communicate what is important devoid of unnecessary details and to help developers deal with the complexity of the problem being investigated or the solution being developed.

Modeling is used in other form of design and engineering. For instance, architects develop different models of buildings some advising structures, other materials, other ergonomics and so on. The same happen with modelling in software development. Some model are use to capture properties of the problem domain, such as key element of the business or how its process work while other model are used to considered different aspects of the software, such as how the code is divided up and organized, or how various elements of the software communicate and work together. Each model is an abstract representation of some view of the system and such views may change as the development process unfolds.

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Without Modling Problem can be face by a software Developer during software development:

The common problem with growing startup is not following the process, process is essential for any business start of instruction to be followed from start to end not having a documented process is always bad imagine a situation where your skill staff decide to leave the company if we maintain a standard operating procedure for a business you know their working style logic behind the decision, process help you automate the software development you can always hand out manual to your team and ensure you follow a checklist I've worked with my teammate on a web Application which took more than 1.5 years to build with that I learn PR-Per Planning and documentation is essential for any software development. to be done. when you plan to get bigger it will be a plus ~~time~~ point for the organization. organization that implement the process follow documentation create a system for themselves and team have 280% higher success rate than those who do not you need to understand you can't manage -----

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Answer 2:

Analysis Model:

Analysis Model is
compose of three individuals Models:

- ★ Functional Model
- ★ Object Model
- ★ Dynamic Model

Functional Model:

Functional model describe the computation in term of how output values are derived from input values. Functional Model represented by use cases and scenarios.

Object Model:

Object Model describes the static structure of the system with classes and their relationships. Object model represented by class and object diagrams.

Dynamic Model:

Dynamic Model captures the temporal aspects of the object

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Object model with events and states of the object. Dynamic model is represented by state machine and sequence diagram.

