
Evaluate your skills in modeling software using the UML (1: beginner, 10: expert)

1) What is a "System"?

System is a group of entities/objects interacting with each other that create a behaviour.

2) Try to define the term Software!

Set of instructions that interact with a system to create a specific behaviour.

3) Define the Term Software Engineering

Application of knowledge to solve a problem using digital technologies.

4) What is a model?

Description on the behaviour of something.

5) What is a design?

Description on how something works

6) What is a good design?

2 points:

- It works

- Everyone can understand it.

7) Define the term object-oriented programming

Use of abstract methods to implement a solution and create code that can be re-used.
Ex: Application Form.

8) What do you know about UML?

Language (Diagrams) used to interpret a system and make it understandable to everyone.

9) Which Software- or Systems – Modeling tools do you know?

Visio
Flowcharts

10) What was the biggest Software Engineering project you realized?

- number of UML Classes / Components

Don't remember

- number of UML State Machine states

4

- number of code lines

40k ish / Don't remember

11) State Machine

Describe the main elements of a state machine

- Starting state
- Next state
- Final state
- Number of possible states.
- Exceptions

12) Class diagram

Implement a C++ or Java program and specify a class diagram for the following description.

A house may have any number of pets living in it. The two possible types of pets that can live in a house are dogs and cats. Each dog or cat has a name. An animal's house is its one and only home. You can tell an animal to make noise and it will do its thing.