## IS-A and HAS-A relationship:

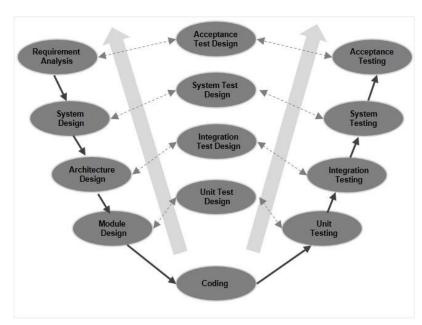
- Is-A relationship: Whenever one class inherits another class, it is called an IS-A relationship.
- Has-A relationship: Whenever an instance of one class is used in another class, it is called HAS-A relationship.

## **Functional programming**

- Functions are fundamental to code organization; they exist in all higher order programming languages. Generally, functional programming means using functions to the best effect for creating clean and maintainable software. More specifically, functional programming is a set of approaches to coding, usually described as a programming paradigm.
- Functional Programming in Python: When and How to Use It Real Python

#### V model in SW:

- The V-model is an SDLC model where execution of processes happens in a sequential manner in a Vshape. It is also known as Verification and Validation model.
- The V-Model is an extension of the waterfall model and is based on the association of a testing phase for each corresponding development



stage. This means that for every single phase in the development cycle, there is a directly associated testing phase. This is a highly-disciplined model and the next phase starts only after completion of the previous phase.

## **Devops, Dataops and Mlops tools**

- DevOps automation tools include Puppet, Chef, Ansible, and SaltStack.
- DataOps tools:
  - Composable DataOps Platform
  - Lumada IIoT
  - K2View
  - StreamSets
  - HighByte
- MLOps tools:
  - MLFlow
  - Comet ML
  - Weights & Biases

# ER diagrams vs. EER diagrams: What's the difference?

- Enhanced entity-relationship (EER) diagrams are basically a more expansive version of ER diagrams. EER models are helpful tools for designing databases with high-level models. With their enhanced features, you can plan databases more thoroughly by delving into the properties and constraints with greater precision.
- An EER diagram provides you with all the elements of an ER diagram while adding:
  - Attribute or relationship inheritances
  - Category or union types
  - Specialization and generalization
  - Subclasses and superclasses

#### What is RPA?

- Is a software technology that makes it easy to build, deploy, and manage software robots that emulate humans actions interacting with digital systems and software.
- RPA tools:
  - Ui path
  - Automation anywhere
  - Power automate