## SOFTWARE DEVELOPMENT LIFE CYCLE (SDLC)

* **Requirements**: Identifies what the software must do, capturing user needs and constraints.
  + *Importance*: Sets the project’s direction and scope.
  + *Interconnection*: Directly informs the design phase.
* **Design**: Plans the solution, outlining system architecture and user interfaces.
  + *Importance*: Translates requirements into actionable plans.
  + *Interconnection*: Blueprint for implementation.
* **Implementation**: Builds the software, writing code according to the design specifications.
  + *Importance*: Actual creation of the software product.
  + *Interconnection*: Code is developed for testing.
* **Testing**: Evaluates the software against requirements to ensure it is defect-free.
  + *Importance*: Guarantees quality and reliability.
  + *Interconnection*: Validates implementation; informs deployment.
* **Deployment**: Releases the software to users, often including installation and configuration.
  + *Importance*: Software is put into production use.
  + *Interconnection*: Feedback may loop back to requirements.