The Software Development Process

Software Development Models – Iterative Model

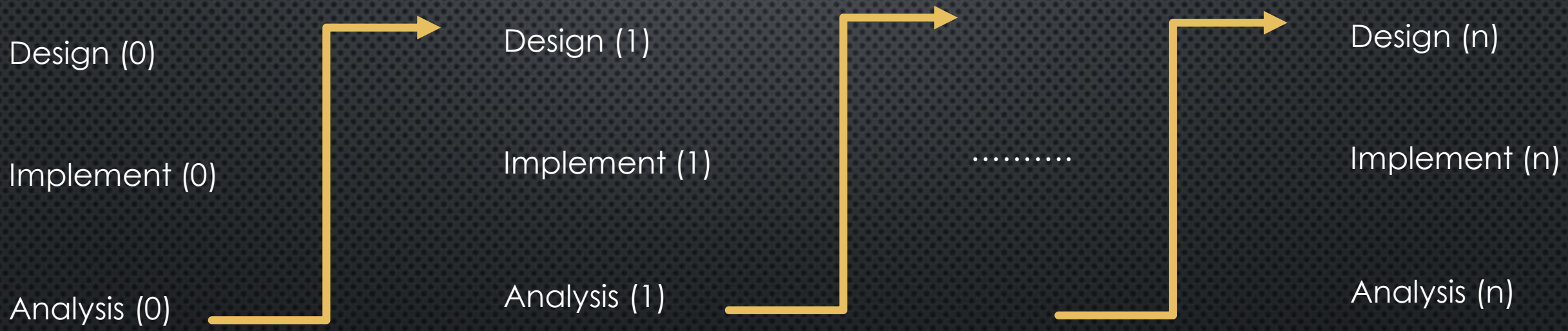
ITERATIVE MODEL

- An iterative life cycle model does not attempt to start with a full specification of requirements. Instead, development begins by specifying and implementing just part of the software, which can then be reviewed in order to identify further requirements
- This process is then repeated, producing a new version of the software for each cycle of the model

For example:

- When we work iteratively we create rough product or product piece in one iteration, then review it and improve it in next iteration and so on until it's finished
- In the first iteration the whole drawing is sketched roughly
- Then in the second iteration lines are refined
- In the last iteration finishing is done
- Hence, in iterative model the whole product is developed step by step

DIAGRAM OF THE ITERATIVE MODEL



ADVANTAGES OF THE ITERATIVE MODEL

- In iterative model we can only create a high-level design of the application before we actually begin to build the product and define the design solution for the entire product. Later on we can design and built a skeleton version of that, and then evolved the design based on what had been built.
- In iterative model we are building and improving the product step by step. Hence we can track the defects at early stages. This avoids the downward flow of the defects.
- In iterative model we can get the reliable user feedback. When presenting sketches and blueprints of the product to users for their feedback, we are effectively asking them to imagine how the product will work.
- In iterative model less time is spent on documenting and more time is given for designing

DISADVANTAGES OF THE ITERATIVE MODEL

- Each phase of an iteration is rigid with no overlaps
- Costly system architecture or design issues may arise because not all requirements are gathered up front for the entire lifecycle

WHEN TO USE THE ITERATIVE MODEL

- Requirements of the complete system are clearly defined and understood
- When the project is big
- Major requirements must be defined; however, some details can evolve with time