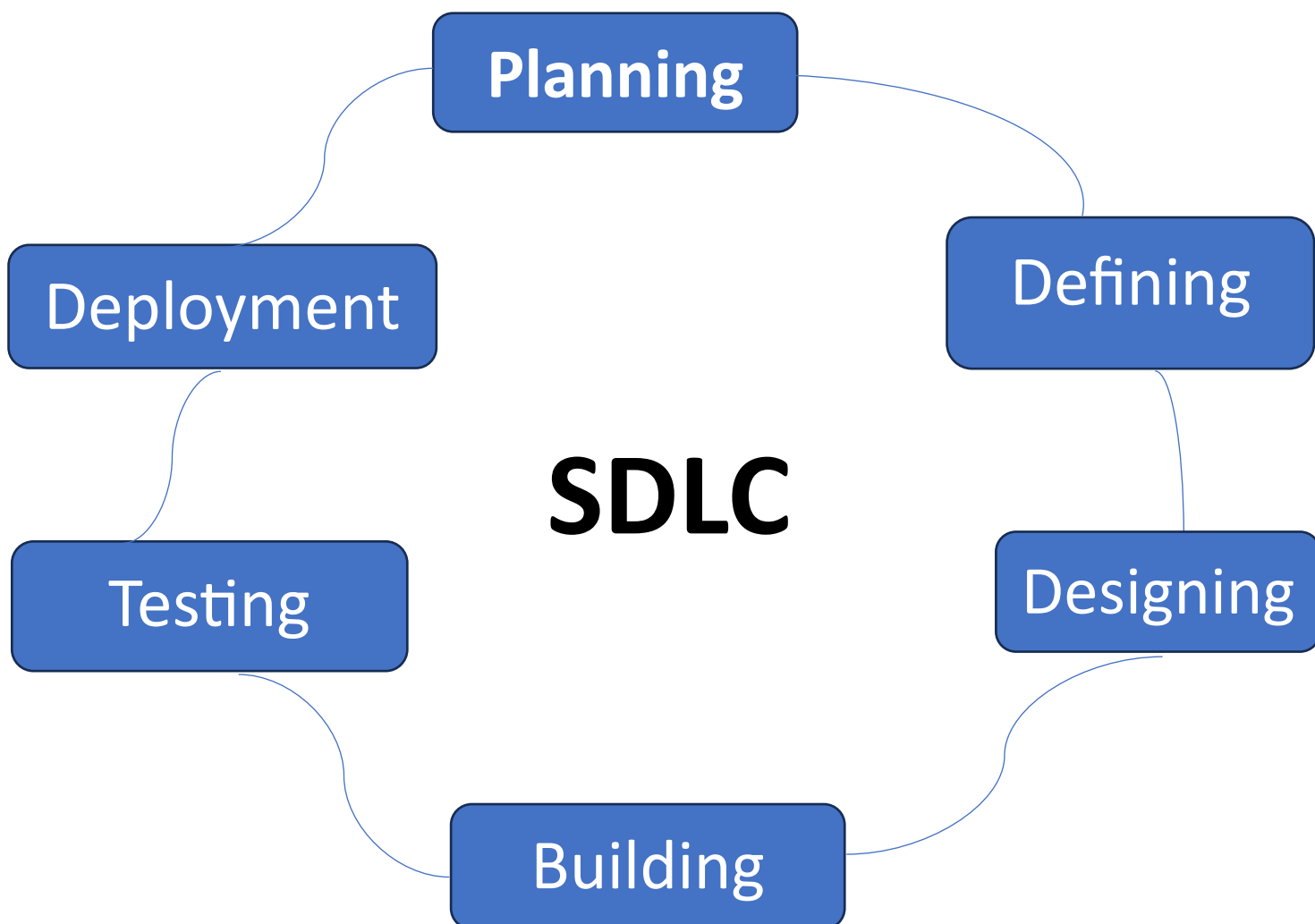


# Assignment No. 01

Create a one-page infographic that outlines the SDLC phases (Requirements, Design, Implementation, Testing, Deployment), highlighting the importance of each phase and how they interconnect.



## 1: Planning and Analysis:

The Planning and Analysis phase of the Software Development Life Cycle (SDLC) is important because it sets the foundation for the project. In this phase, the project team develops a clear understanding of the problem that needs to be solved and defines the goals and objectives for the project. The team also identifies the stakeholders who will be affected by the project and identifies the resources that will be required. This information is used to develop a project plan that includes a schedule and budget. Once the project plan is approved, the team moves on to the next phase of SDLC.

## **2: Defining:**

Once the requirement analysis is done the next step is to clearly define and document the product requirements and get them approved from the customer or the market analysts. This is done through 'SRS' – Software Requirement Specification document which consists of all the product requirements to be designed and developed during the project life cycle.

## **3: Designing:**

The design phase in SDLC is when the system requirements are translated into a blueprint for the

proposed software solution. The design must take into account both functional and non-functional requirements, as well as any applicable constraints. Once the design is completed, it will be reviewed and approved by the relevant stakeholders. Only after the design has been finalized can the development phase begin. This is when the actual coding of the software solution takes place. Although the design phase is often considered to be separate from development, in reality, they are closely linked. Designs made during the design phase can have a significant impact on the development process, so it is crucial to get them right. With careful planning and attention to detail, the design phase can lay the foundation for a successful software.

## **4: Building:**

In this stage of SDLC the actual development starts and the product is built. The programming code is generated as per DDS during this stage. If the design is performed in a detailed and organized manner, code generation can be accomplished without much hassle.

Developers have to follow the coding guidelines defined by their organization and programming tools

like compilers, interpreters, debuggers etc are used to generate the code. Different high level programming languages such as C, C++, Pascal, Java, and PHP are used for coding. The programming language is chosen with respect to the type of software being developed.

## **5: Testing:**

The software testing and integration phase is a crucial part of the software development life cycle (SDLC). This is the phase where new code is integrated into the existing code base and tested for functionality and performance. The goal of this phase is to ensure that the new code works as expected and does not introduce any new bugs or performance issues. To achieve this, various test cases are designed and executed against the new code. Once all the test cases have been passed, the code is then ready for deployment.

## **6: Deployment:**

The deployment phase in the software development life cycle (SDLC) is the process of putting a new software system or application into production. This usually happens in stages, first with a small group of

users, then with a larger group, until finally the system is made available to everyone who needs to use it.

During the deployment phase, there are a number of important tasks that need to be completed, such as testing the system to make sure it works as expected, setting up security and user permissions, and creating documentation and training materials. Once the system is up and running, it will need to be monitored and maintained on an ongoing basis.

