

# SDLC (Software Development Life Cycle)

—

SDLC (software development life cycle)

# Software Development Life Cycle

- The full name of SDLC is software development life cycle.
- It is also called system development life cycle.
- SDLC explains the life cycle of a software or system.
- Database design is a fundamental component of SDLC.
- All the steps or processes involved in developing any system (software) are called SDLC by combining all those steps.
- Phases of SDLC

# Software Development Life Cycle

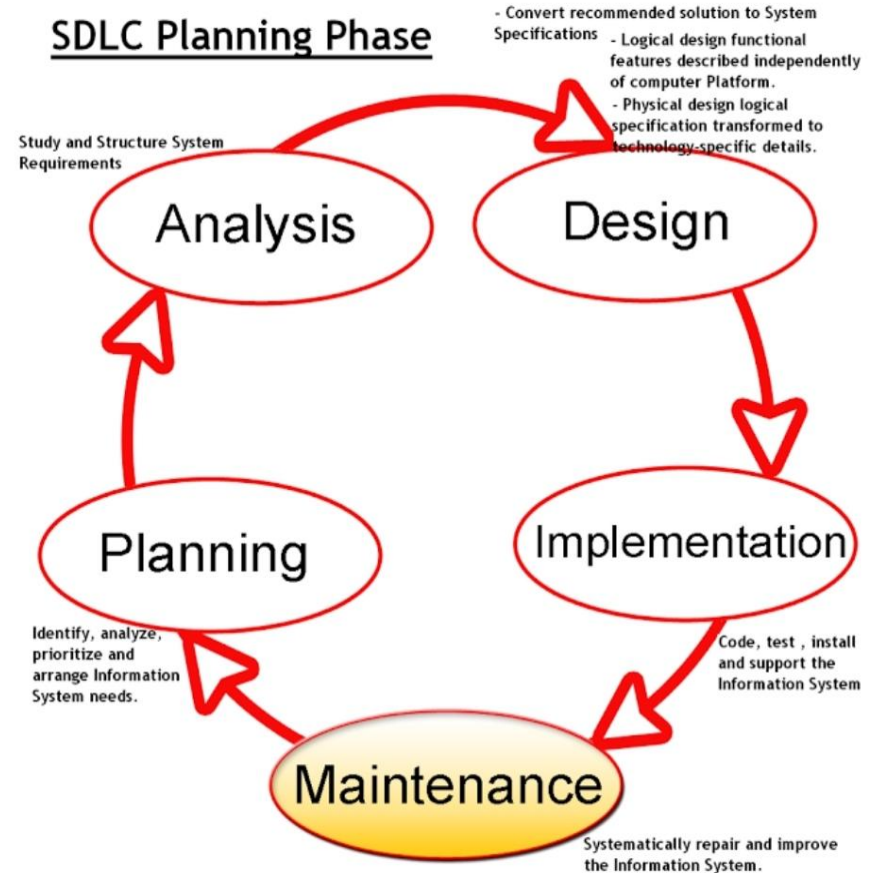
There are five phases/steps in developing a software or system. Which is the following:-

- 1.Planning
- 2.Analysis
- 3.Detailed System Design
- 4.Implementation
- 5.Maintenance

# Software Development Life Cycle

## 1:-Planning:-

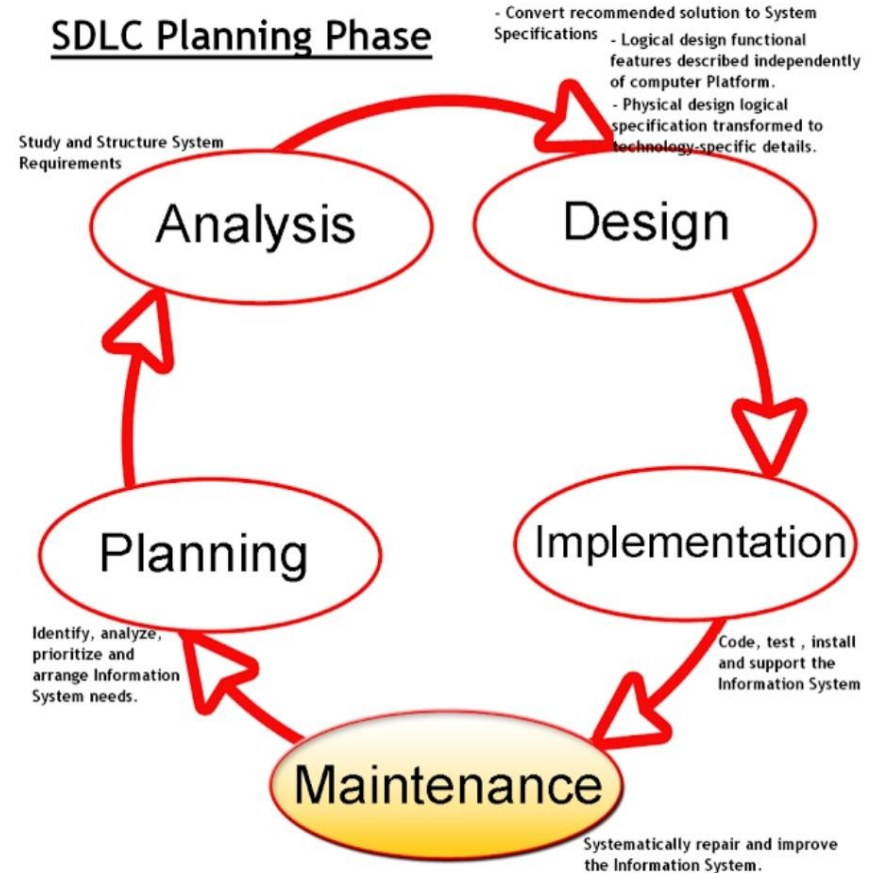
- In the planning phase, we see or discuss, what do we want the software to achieve or what are its goals?
- The planning phase also includes the quality requirements and risk identification of the software.
- In this phase we see whether the system (software) is currently doing its job properly or not.
- If It is doing his job properly then there is no need to change it.
- In this we also evaluate the cost.
- How much cost will be required to design the system,
- it all comes in the planning phase.



# Software Development Life Cycle

## 2:- Analysis:-

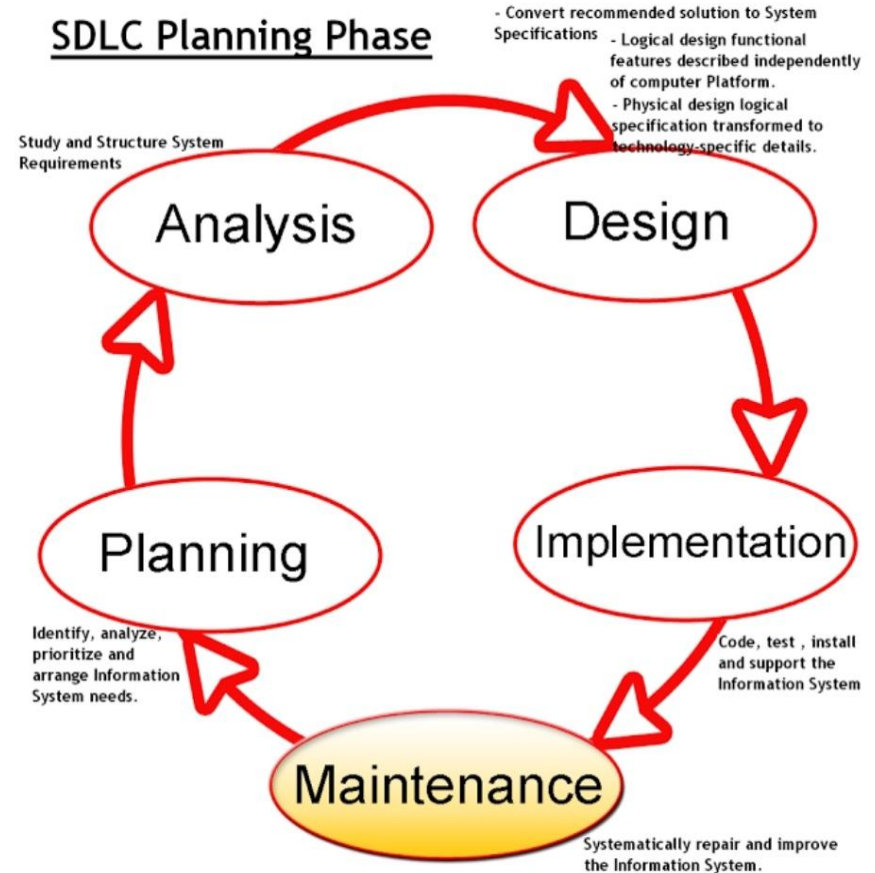
- The problems are defined in the planning phase.
- And in the analysis phase those problems are examined with more details.
- In the analysis phase, the requirements of the user are seen, what are the needs of the end users.
- In this phase the hardware and software of the system are studied thoroughly.
- In this, both end users and designers together solve the problem areas.



# Software Development Life Cycle

## 3:-Detail System Design:-

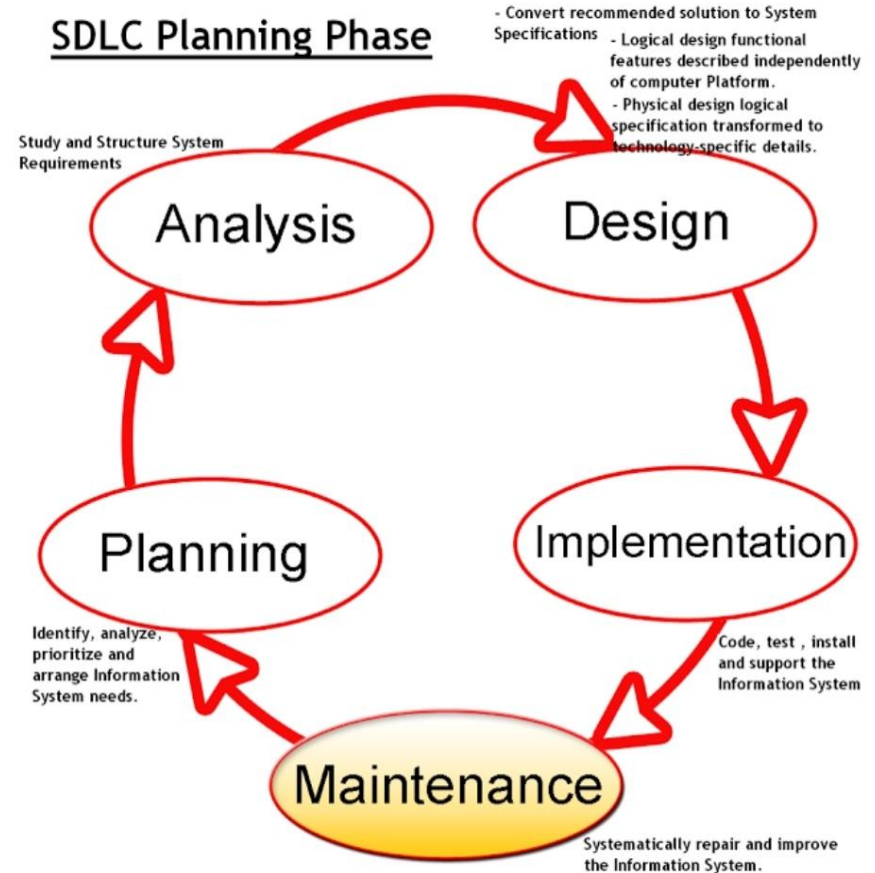
- In the detail system design phase, the designer completes the process design of the system.
- Complete technical specifications are included in the system so that the system becomes more interactive and efficient.



# Software Development Life Cycle

## 4:-Implementation:-

- In this phase, the hardware, DBMS, software and application programs are installed.
- And the database design is implemented.
- The system has to go through testing, coding, and debugging processes before the database design can be implemented.
- This is the longest lasting phase in SDLC.



# Software Development Life Cycle

## 5:-Maintenance:-

- This is the last phase of SDLC.
- When the system (software) is ready and users start using it,
- Then the problems that come in it have to be solved time-to-time.
- Taking care of the finished system (software) according to time and maintaining it is called maintenance. There are four types of maintenance in SDLC:-

1. Corrective maintenance
2. Adaptive maintenance
3. Perfective maintenance
4. Preventive maintenance

