SNS COLLEGE OF TECHNOLOGY

Coimbatore-35
An Autonomous Institution
Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A+' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SOFTWARE ENGINEERING

(Agile UX/UI)

UNIT 4-UI analysis and design

Dr.A.SUMITHRA

ASSOCIATE PROFESSOR,

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING,

SNSCT, Coimbatore.

USER INTERFACE ANALYSIS AND DESIGN

- 1. Interface Analysis and Design Models

- The Process

INTERFRACE ANALYSIS AND DESIGN MODELS

- **Interface Analysis and Design Models:**

- **Four** different models come into play when a user interface is to be analyzed and designed.
- 1. *user model*
- 2. *design model*
- 3. *user's mental model*
- 4. *implementation model.*

INTERFRACE ANALYSIS AND DESIGN MODELS

- **USER MODEL:**

- A human engineer (or the software engineer) establishes a *user model*.

- To build an effective user interface, "all design should begin with an understanding of the intended users, including profiles of their age, gender, physical abilities, education, cultural or ethnic background, motivation, goals and personality".

INTERFRACE ANALYSIS AND DESIGN MODELS

◉ **MENTAL MODEL:**

◉ The user's *mental model* (system perception) is the image of the system that end users carry in their heads.

INTERFRACE ANALYSIS AND DESIGN MODELS

- **Implementation Model:**
- The *implementation model* combines the outward manifestation of the computer based system (the look and feel of the interface), coupled with all supporting information (books, manuals, videotapes, help files).

- When the implementation model and the user's mental model are coincident, users generally feel comfortable with the software and use it effectively.
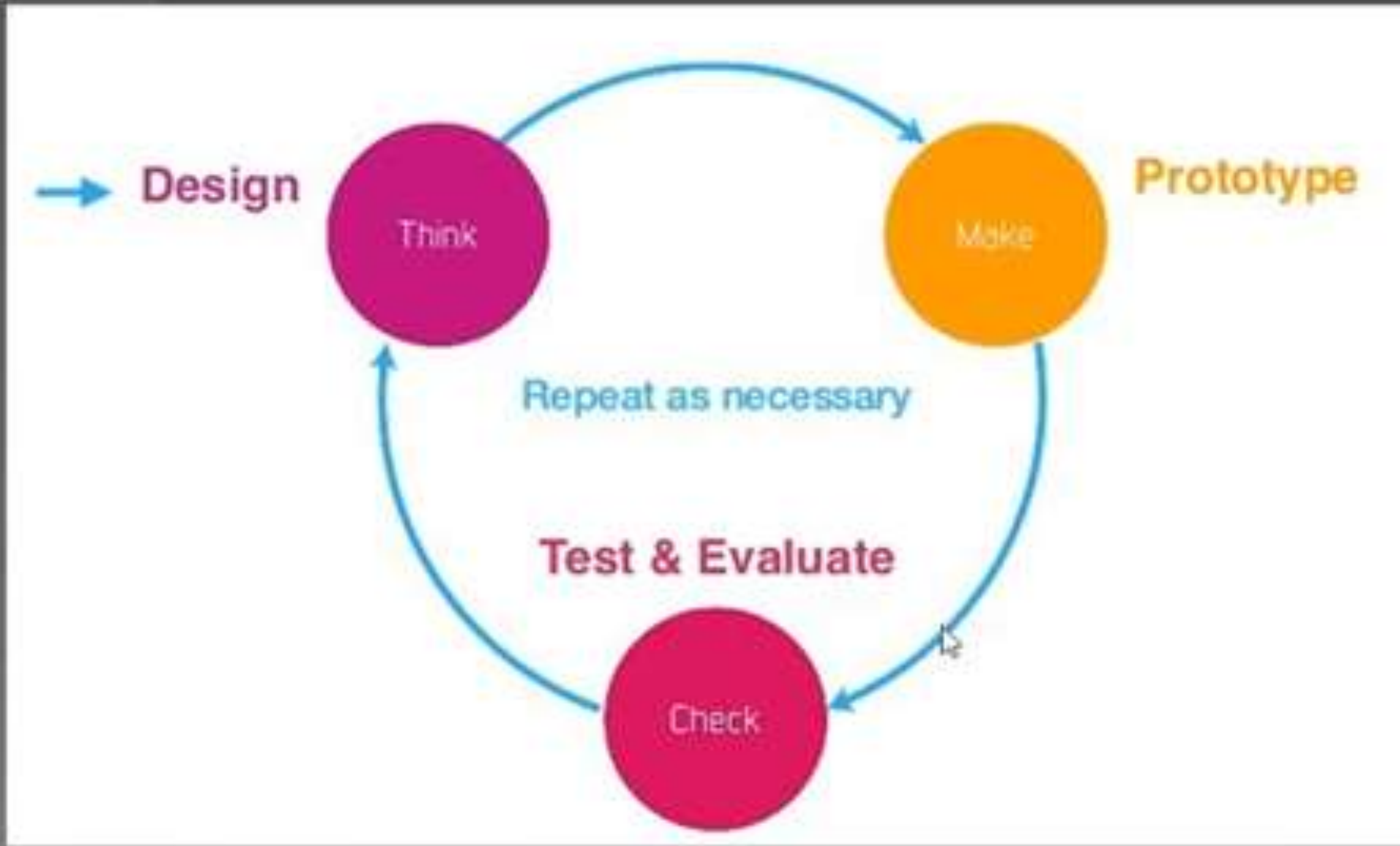
INTERFRACE ANALYSIS AND DESIGN MODELS

- **Design Model:**

- A **design model in Software Engineering** is an object-based picture or pictures that represent the use cases for a system. Or to put it another way, it is the means to describe a system's implementation and source code in a diagrammatic fashion. This type of representation has a couple of advantages.

USER INTERFACE DESIGN PROCESS

- **PROCESS:**
- The analysis and design process for user interfaces is iterative and can be represented using a spiral model.
- (1) interface analysis and modeling,
- (2) interface design,
- (3) interface construction, and
- (4) interface validation.

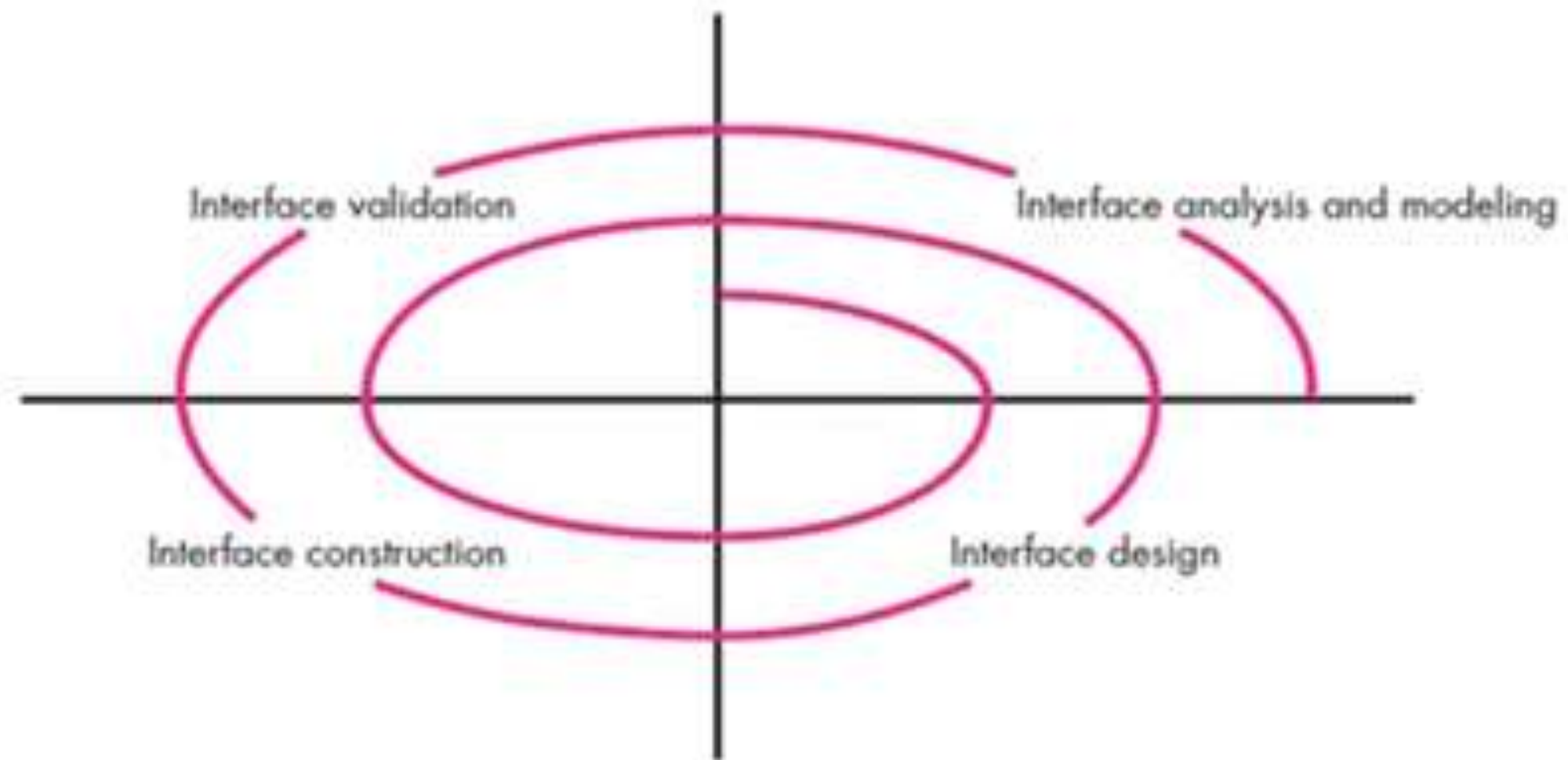# USER INTERFACE DESIGN PROCESS

Fig : The user interface design process

USER INTERFACE DESIGN PROCESS

- *Interface analysis* focuses on the profile of the users who will interact with the system. Skill level, business understanding, and general receptiveness to the new system are recorded; and different user categories are defined.

USER INTERFACE DESIGN PROCESS

- The goal of *interface design* is to define a set of interface objects and actions that enable a user to perform all defined tasks in a manner that meets every usability goal defined for the system.