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)

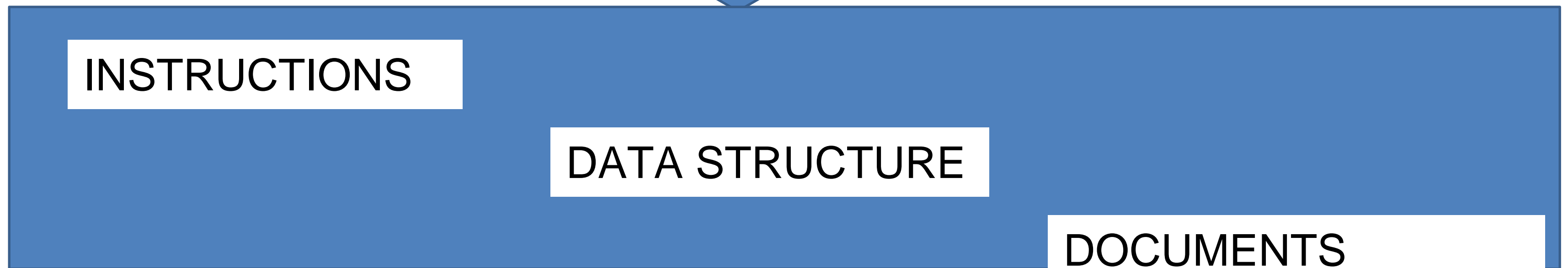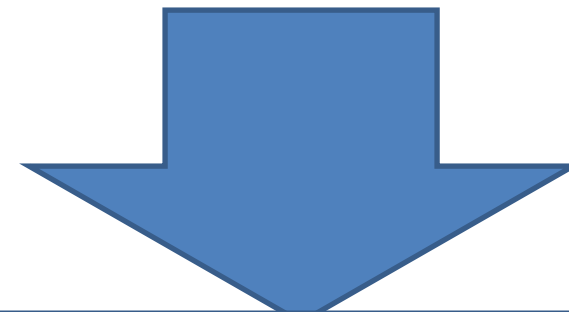## UNIT 1 – Introduction to Software Engineering

CONTENT

- What is Software?
- Components of Software
- Types of Software
- Characteristics of Software
- Role of Software
- Why we need Software
- What is Software Engineering ?

SOFTWARE

SOFTWARE

INSTRUCTIONS

DATA STRUCTURE

DOCUMENTS

ESSENTIAL COMPONENTS OF SOFTWARE

1)INSTRUCTIONS/Programs:

- Functionality
- Performance

The INSTRUCTIONS must be developed according to the users satisfaction

2) DATA STRUCTURE:

- Essential Components
- Maintains Data
- Algorithms/ Program logic
- Design

3)DOCUMENTS:

- User Manual
- Design Methods

Types of Software

1) **System Software-**Provides interface to other application

- A collection of programs written to service other programs at system level

    Example: Windows OS

2)**Real time Software**-Programs that monitors, analyze , control real world events as they occur

    Example : Air traffic Control system, Flood Control System etc

3) **Business Software**- Programs that access,analyze and process business information's

    Example :PayRoll System

4) Engineering and Scientific Software- Software using "number Crunching" algorithms for different science and applications

Example: AUTO CAD, MATLAB, etc

5) Embedded Software-Embedded software reside in read-only memory and is used to control product and systems for the consumer and industrial markets. It has very limited functions and control capability.

Example: ATM s, Calculator, Printers, etc

Types of Software

6)Web Based Software : Its used directly over the internet with a web browser
- We don't have to install anything particularly to access this software
   Example : Gmail , Net banking etc

7)AI Software- Programs make use of AI techniques and methods to solve complex problems. Active areas are expert systems , pattern recognition, game