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2020 – 2021

Odd Semester – Nov 2020

Open Source Technology - P1R1ITCC2

Unit - I

02.11.2020

UNIX

* Introduction
* AT & T laboratory
* UNIX Types
* Compiler
* Interpreter
* Details

UNIX Architecture

03.11.2020

* Diagram
* Components
  (i) Kernel
  (ii) Software
  (iii) Hardware
  (iv) User
* Details
* Types of the components availabilities
* Example

features of UNIX

* Cross-platform O.S
* Handling files
* Documentation
* Email Processing
* Printing and formatting
* Single/Multi user O.S
* Security

Loading Commands

* Loading commands list
* Syntax
* Details
* Example
* Programs

Internal and External commands

06.11.2023

* list of Internal commands
* Syntax
* Details
* Example
* Program
* list of External commands
* Syntax
* Details
* Example
* Program

General Purpose Utilities

07.11.2023

* cal
* date
* echo
* Printf
* bc
* Script
* Syntax

* Syntax

* Details

* Example

* Programme

17.12.20

logical operator

(i) -a

(ii) -o

(iii) -n

* Details

* example

18.12.20

Looping Statement

(i) while

(ii) for

(iii) trap

* Syntax

* Details

* example.

18/12/20

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LESSON PLAN

2020 - 2021

ODD Semester

CORE COURSE II (Semester V)

Operating System – U5RITCC11

UNIT – I : Overview.

Importance of operating systems – Basic Concepts and Terminology – An operating system resource Manager – An operating system process viewpoint (where these resource Manager are activated) – other views of an operating system – I/O programming – interrupt structure and processing.

UNIT – II : Memory Management.

Single Contigoous Allocation – introduction to Multi-programming – partioned allocation – Relocatable Partitioned Memory management – paged Memory Mgt – Demand – paged memory management – Segmented memory management – Segmented and demand – paged memory mangement.

UNIT – III : Processor Management.

State Model – Job Scheduling – Functions – Policies – Job Scheduling in Non multiprogrammed Environment – process scheduling – Function – Policies – Process State diagrams for scheduling – Evaluation of round – Robin Multiprogramming – Performance – Multiprocessor systems – process Sychronization.

UNIT – IV : Device Management.

Techniques for device Management – Device Characteristics – Hardware Considerations channels and control Units – Device Allocation Considerations – I/O Traffic Controller, I/O Scheduler, I/O Device Handlers – Virtual Devices – Design of a Spooling System.

UNIT-V: Information Management.

Introduction - A simple file System - General model of a file system - Symbolic file System - Basic file system - Access control verification - logical file system - physical file system - Allocation strategy module - device strategy module, I/O Initiator, device Handler.

Text Book:

operating System - Stuart E. Madnick John. J. Donovan 1974 by McGraw - Hill, Inc

3.8.2020

I | IV

Introduction.

Operating system.

↳ It is a collection of program modules act as a interface b/w user program and Hardware.

Main function

↳ Control all equipments and resources [Memory, I/O devices, files etc]

4.8.2020

II | II

Importance of os.

↳ The new field (robotics, automobile, datamining, cloud computing and Medical research)

↳ The High quality performance in the new fields of os.

↳ 4 Functions

(1) Memory management

(2) Device Management

(3) process Management

(4) Information Management

5/8/2020
Tue

Basic Concepts and terminology

↳ Computer hardware structure

(i) Main memory
  ↳ used to store data and instruction

(ii) CPU
  ↳ interpreting instructions and performing operations

(iii) Control units
  ↳ processor and performs Arithmatic and logic

(iv) Process
  ↳ Executed instructions that Controls.

↳ Programing terminology.

Software
  ↳ collection of program

Program
  ↳ Sequence of instruction to solve

↳ Operating System Terminology
  ↳ A collection of Activities need to Completed.

Physical file System.

Specifying member of bytes.
Mapping to the physical

21.9.2020
VI IV

Allocation Strategy

⇒ It uses POT which contains memory details to store a file.

Device Strategy

I/O Scheduler to complete the file.

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Lesson plan.

2020 - 2021

ODD semester.

SUBJECT CODE: U5RITSBE2.

SUBJECT NAME: SOFT SKILLS.

UNIT I: OVERVIEW OF SOFTSKILLS

Overview: Communication Skills - Interpersonal Skills Leadership qualities - Lateral thinking, Creativity and Innovation - Time Management - Stress Management - People Skills (i) Ego Styles - professional Skills.

UNIT II: ATTITUDE

Attitude - Types of Attitudes - Negative Attitudes - Reactive Attitudes - Victim Attitudes - Planning Attitudes - Entrepreneurial attitude - Implicit and Explicit attitudes - Relational Attitude - Irrational attitude - Positive Attitude.

UNIT III: EMOTIONAL INTELLIGENCE AND INTERPERSONAL SKILLS

Emotional Intelligence: what is emotional intelligence - four branch Model: Interpersonal Skills: Introduction - positive character traits - Formal interpersonal Skills - Reasons for poor interpersonal Skills - Poor emotional intelligence - Defiance - Lack of Co-operation - incompatibility - Stress.

UNIT IV: SELF - DEVELOPMENT AND LEADERSHIP:

Self - Development: Self - awareness - Motivation Maslow's theory of Hierarchy and needs - Self analysis through SWOT - Leadership qualities: Meaning - Traits Leadership - Honesty - Integrity - Dedication - Responsibility - Goal Setting - knowledge of Self and the Team - Decision making - Management - Leadership and vision

UNIT V : SPEAKING SKILLS AND INTERVIEW SKILLS

Speaking Skills - The Sounds in English - Benefits of Speaking - Self development through Speaking Skills - Tasks - Interview Skills: Types of Interviews - other types of Interviews - preparing for face-to-face Interview.

TEXT BOOKS:

"SOFT SKILLS", S. Hariharan, N. Sundarajan, S.P. Shanmuga priya, MJP Publishers.

www.mjppublishers.com.

DATE : 3.8.20 CLASS : III B.Sc (IT) DAY/HOUR : I / III & IV.

SOFT SKILLS :

* Introduction to Soft Skills.

1) Introduction.
2) Life Skills
3) Communication Skills
4) Employability Skills
5) Corporate Skills.

Introduction. — An overview

Life Skills
- Attitude
- Emotional Intelligence
- Interpersonal Skills
- Self-Development

Communication Skills
- Process of Communication
- Listening Skills
- Speaking Skills
- Reading Skills
- Writing Skills
- Presentation Skills
- Professional writing strategies
- Telephone Skills

Employability Skills
- Interview Skills
- Group Discussion

Corporate Skills
- Leadership Qualities
- Negotiation Skills
- Time Management
- Stress Management

DATE : 4.8.2020 CLASS : III B.Sc IT (A & B)
DAY/HOUR : V / I & V.

Soft Skills :

The term "Soft Skill" has become a popular word in Career Contexts. It is defined as a set of Skills that influence how one interacts with others.

Hard Skills:

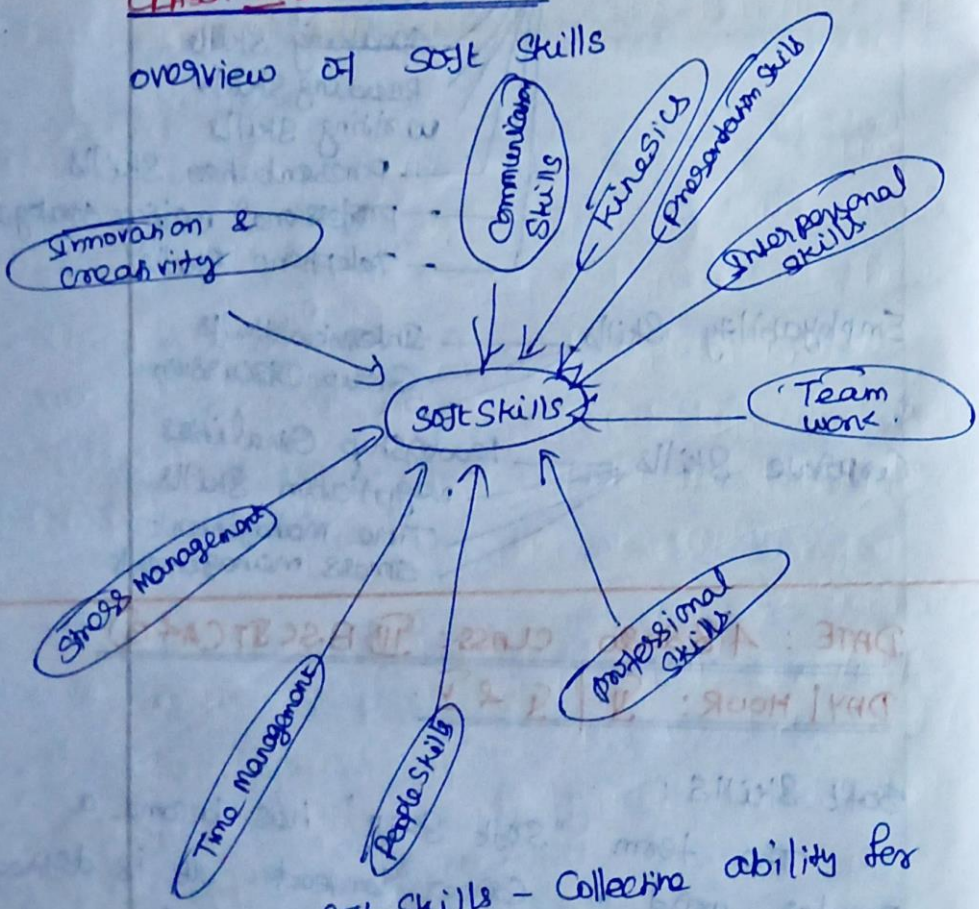
It refers to one's education, experience and expertise.

* To get an overall idea of the soft skills
* To differentiate among the four Communication Skills.
* To recognize different types of Career Skills and Corporate Skills.
* To distinguish between different types of ego styles.
* To understand what is being a professional.

DATE: 5.8.20 DAY/HOUR: III / III

CLASS: III B.SCT A&B

overview of soft skills



Soft Skills - Collective ability for excellence.

Attitude:

Attitudes and attitude objects are functions of cognitive, affective and conative components. Attitudes are part of the brain's associative networks, the spider-like structures residing in long-term memory that consist of affective and cognitive nodes linked through associative pathways.

Attitude develop on the ABC model affect, behavioural change and cognition.

- The affective response is a physiological response it expresses an individual's preference for an entity.
- The behavioural intention is a verbal indication of the intention of an individual.
- The cognitive response is a cognitive evaluation of the entity to form an attitude.

Types of Attitudes:

There are various types of managerial attitudes. These attitudes pervade all aspects of activities. The descriptions given can help us determine our managerial attitude.

1. Negative Attitude.
2. Reactive Attitude
3. Victim Attitude.
4. Planning Attitude.
5. Entrepreneurial Attitude.
6. Implicit and Explicit Attitudes
7. Rational Attitude
8. Irrational Attitude.
9. Positive Attitude.

During the Interview:

* Does the applicant have the required abilities for the job.
* Can he manage people?

Then the employer will ask for the candidate's questions.

① Who will I report to?
② What is the share of teamwork?
③ What is the management philosophy here?
④ Is there any other steps in the interview process,

Closing the Interview.

It is the fourth stage, which is to be initiated by the interviewer.

A good interviewer explains the decision making process and the time to be taken.

A good interviewer also begins salary negotiation here and the candidate's approach should be persuasive not argumentative.

DATE: 20.11.20 CLASS: IV B.Sc IT A&B DAY/HOUR: V/V.

Revision Unit V

Topics: Interview Skills

DATE: 21.11.20 CLASS: IV B.Sc IT A&B DAY/HOUR: V/IV & V

Revision Unit III, Unit IV, Unit V

DATE: 30.11.20 CLASS: IV B.Sc IT A&B DAY/HOUR: V/I & V

Revision Unit I & Unit V

DATE: 1.12.20 CLASS: IV B.Sc IT A&B DAY/HOUR: IV/IV

Revision Unit IV.

1/12/20

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NOTES OF LESSON.

2020 - 2021
ODD Semester.

	1	2	3	4	5
D1					
D2					
D3					
D4					
D5					
D6					

	1	2	3	4	5
D1					
D2					
D3					
D4					
D5					
D6					

Major Based Elective

PHP PROGRAMMING

UNIT: 1 INTRODUCTION

Variables: Creating Variables - Creating Constants - Data types - Operators - if Statement - else statement - if else ladder Statement - for loop - while loop - dowhile loop.

UNIT: 2 ARRAYS

The php array functions - Extracting data from arrays - Sorting arrays.

UNIT: 3 STRING AND FUNCTIONS

The string functions - formatting text strings - Creating functions in php - using default arguments - passing functions some data

UNIT: 4 READING DATA IN WEB PAGES

Handling text fields - Handling checkboxes - Handling Radio button - Handling list boxes - Handling password controls.

UNIT: 5 SESSION AND COOKIES

Setting a cookie - Reading a cookie - Setting cookies' expiration - Doleting cookies - Storing data in Session - hit Counter using Sessions.

3/8/20 I - 2H

PHP Introduction

→ Hypertext preprocessor

→ Open Source, Server Side, Scripting Language

→ Embedded in html.

Difference between Static & Dynamic

→ Static
→ HTML, Java Script CSS.

→ Dynamic
CGI, AJAX, Asp, Asp.net.

4/8/20 II - 2.4H

php Variables.

→ Variable is just name.

→ Starts with a dollar ($) sign.

→ begin with a letter (or) Underscore

```
<? php
$myCar = "Honda";
echo $myCar;
?>
```

5/8/20 III - 5H

Local Variables

A variable declared in a function is considered local.

```
<?php
  $x=4;
function assignx(){
  $x=6;
print "$x inside function is $x.<br/>";
}
assignx();
print "$x outside fun is $x.<br/>";
?>
```

6/8/20 IV - 5H

Global variable

→ a global variable can be accessed in any part of the program.

→ Keyword GLOBAL in front of the variable.

```
<?php
  $somevar=15;
  function addit(){
  GLOBAL $somevar;
  $somevar++;
  print "somevar is $somevar";
}addit(); ?>
```

23/9/20 II - 21 H

Hit Counter using Session

```
<?php
session_start();
if(!isset($_SESSION['count']))
$_SESSION['count']=1; else $_SESSION
['count']++;
?>
<html>
<head>
<title> Count Visits </title>
</head><body>
<h2> you have visited this page <?php
echo $_SESSION['count']; ?>
times in this session </h2>
</body>
</html>
```

23/9/20

23/9/20

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Lesson plan.

2020 - 2021

ODD semester.

J2SE - TECHNOLOGY (U5RITCC10)

UNIT-1 : OOP and Java : Introduction

Object and classes : java language - The primaries : Introduction - character set - TOKens - constants - variables - operators and Expressions - Library methods - strings - I/O statements - control statement : If statement - switch statement while statement - Do. while statement - For statement.

UNIT-II : Arrays and Methods

Introduction - one dimensional arrays - Two dimensional arrays - methods - method overloading - recursion. classes and objects : Introduction - General form of a class - creation of objects - usage of constructor - this keyword - constructor overloading - copy constructor - static data members - static methods - Finalize() method - Inner classes and Anonymous inner classes.

UNIT-III : Inheritance and polymorphism

Introduct - Inheritance the variables in a classes - Inheritance the methods in a classes - Inheritance and constructor - Abstract classes - Final classes - Interface and packages : Introduction - Interfaces - structure of an Interface - Implementation of an interface - Interface Inheritance - package statement - placing the classes in a package - package Hierarchy - Import statement - Hiding the classes in a package - Access control Modifiers.

Unit IV: Applets and AWT:

Introduction: The Life cycle of an applet. The applet classes - Development and Execution of a simple Applet - syntax of applet tag - methods in the Graphic class - Abstract windowing toolkit - Introduction - Events - Listeners - Event Handling methods - Inheritance Hierarchy of control classes - Labels - Button control - checkbox control - Radiobutton control - choice control - List control - Scroll bars.

UNIT-V: Exception Handling and multithreading

Introduction - Default Exception Handling - Exception and Error classes - catch block searching pattern - throw statement - throws clause - custom Exception - Multithreading: introduction - Life cycle of a thread - creating and Running Threads - methods in the Thread class - setting the priority of a thread - synchronization, deadlock - inter thread communication - Applet involving Threads.

Text Book:

1. programming with java - C. Muthu

Unit I - chapters 1, 2, and 3, Unit II - chapters 4 and 5
unit - III - chapters 6 and 7, Unit IV - chapter 8, 9 & 10,
Unit V - chapters 12 and 13

1/8/20 D1/I

Java Introduction

=> Java is purely an object-oriented language

-> The central idea behind object-oriented programming is to divide a program into isolated parts called objects.

-> Each object contains two parts:-

* Data
* functions.

4/8/20 D2/I

oops concepts in java

-> Java supports the following oops concepts

* class and object
* Inheritance
* polymorphism
* Encapsulation
* Message passing
*

5/8/20 D3/II,IV

java language

=> In 1991, a group of programmers led by James Gosling and patrick Naughton developed a language named "oak" at Sun micro systems.

=> since 1996, both Microsoft and Netscape have supported java in their browsers.

=> JVM (Java Virtual Machine)

6/8/20
D4/I
IV

character Set

=> The set of characters allowed in Java constitutes its character set

=> character set contains :-

Numerals (0, 1, ... 9)

Alphabets (a-z, A-Z)

special characters (+ - % . / *

=> < > ( ) ' \ ! ; ,)

7/8/20
D5/
IV, VI

TOKENS

=> The smallest individual entities in a Java program are known as Tokens

=> Java supports the following TOKENS

reserved keywords

identifiers

literals

operators

Separators

8/8/20
D6/I

constants

=> constant is a fixed value that cannot be changed during the execution of the program.

=> TYPES :-

* integer constants
* real constants
* character and string constants

4/11/20
D6/5

Hiding packages in a class.

=> when we import a package within a program, only the classes declared as public in that package will be made accessible within this programs.

Ex:-

```
package pack1;
public class A
{
};
class B
{
};
class C
{
};
```

4/11

4/11/20

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2020 - 2021

Even Semester - April 2021

JAVA PROGRAMMING – U4R, IT CC8

Unit – I

05.01.21

JAVA Introduction

* OOP's Language
* GWK
* James Gosling and Team
* Advantages
* SunMicroSystem

Basic concept of OOP's

06.01.21

* object
* class
* Data Abstraction
* Data Encapsulation
* Inheritance
* Polymorphism
* Message Passing
* Dynamic binding

– Details

07.01.21

Benefits of OOP's

* Class
* Object
* Data hiding
* Reusability
* Package

- Details

11.01.21

Applications

* Real - time System
* CAD
* CAM
* CIM
* Graphics
* Multimedia
* Games
* AI

Details

25.02.21

Passing Parameter to Applet

* Definition
* concept
* <APPLET> tag
* <PARAM> tag
* Attributes
* Syntax
* example.

30.03.21

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2020-2021

Even Semester - April 2021.

Dr. S. VASUKI

Assistant professor

Day / Hour	1	2	3	4	5
D1	III B.Sc 'B'		III B.Sc B.C	I M.Sc	II B.Sc I.T
D2	II B.Sc I.T	II M.Sc	III B.Sc 'B'		I M.Sc
D3	II B.Sc I.T		I M.Sc		III B.Sc 'B'
D4	← III 'A' →			II B.Sc B.C	I M.Sc
D5	II B.Sc I.T	I M.Sc		II M.Sc	III B.Sc B.C
D6	II M.Sc		I M.Sc	III B.Sc 'B'	II B.Sc

I M.Sc - Advanced Java Programming

II M.Sc - Software Project Management

III B.Sc B.C - Internet Concepts.

III B.Sc I.T 'B' - Computer Networks

II B.Sc I.T 'A' & 'B' - Java Programming

Core Course 8 (Semester - IV)

Java Programming

UA RI IT CC8

Unit - I : Introduction to oops and Java

Introduction - object oriented Paradigm - Basic concepts of object oriented Proadigm - Programming - Benefits of oop - Applications of oop - Java History - Java features - Java Program structure - Java tokens.

Unit - II : Java Basics :

Constants - Variables - Data types - Declaration of Variables - Giving Values to Variables - Scope of Values - Symbolic constants - Type Casting - operators - Decision making and branching statements - Looping Statements.

Unit - III Classes objects and Inheritance

Defining Class - Method declaration - Creating objects - Constructors - Inheritance - Method

overloading - Static members - method overriding - Final Variables and methods - Abstract method and class - Visibility Control, Arrays: one dimensional array, Two dimensional array

Unit 4: Interfaces and packages:

Introduction - Defining and extending interfaces - Implementing interface. - Accessing interfaces - Packages: Introduction - Java API Packages - System packages - Creating and Accessing Packages - Using a Packages - Adding a class to Package - Hiding a class - Static import, exception handling - Introduction - Types of errors - Exception.

Unit-V: Multithreading and applets

Introduction - Creating threads - stopping and blocking a thread - Life cycle. Applet: Introduction - Life cycle - Applet tag - Running the applet - Passing parameters to Applet Displaying numerical Value

Textbook: "Programming with Java"

Class : II B.Sc I.T

Date 4.01.21 & 5.01.21.

Day order : D1

Hour : IV hr

- What are the basics of Programming language.
- History of Java
- Introduction to Java.
- Web browser
- Advantages of programing languages.

Class : II B.Sc I.T

Date 6.01.21 & 7.01.21

Day order D2

Hour. I hr.

Basic Concepts of object oriented Programming.

- Object and Classes
- Data abstraction and encapsulation.
- Inheritance
- Polymorphism.
- Compile time and runtime mechanisms.
- Dynamic binding
- Message Communication overview.

Class: II B.Sc Date: 8.01.21 & 7.01.21

Day.order: D3 Hour: 1hr.

Benefits of OOP's

1. Avoid Redundant code Using inheritance.
2. Easy to Communicate through modules.
3. From data hiding secure Programs
4. Multiple objects without any interference.
5. Easy to partition the work.
6. Map objects easily.

Overview.

5 Part A Questions in Unit I

Class: II B.Sc Date: 11.01.21 & 12.01.21

Day.order: D4 Hour:

History of Java

- Java features
- Difference between C and C++.

Overview.

Class :- II B.Sc I.T Date: 29.01.21 & 1.02.21.

Day order: D3 Hour :- III

Part 'A', 'B' Questions in Unit I.

- Programs
  - How to add two numbers
  - Simple interest Calculation.
  - Arithmetic operations in Java.
  - Overview.

Class :- II B.Sc I.T Date: 1.02.21

Day order: D3. Hour :- III

~~Part~~ Programs in Java.

- How to set path?
- Difference between Jdk, JRE, and JVM.
- Internal details of JVM
- Variable and data type.
- Unicode System
- Overview.

15/2/21

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Lesson plan.

2020-2021

Semester.

DAY / HOUR	1	2	3	4	5
D1	II IT	I MSC	II MSc		I IT
D2	I IT	I MSc		I MSc	II IT
D3		I IT		III B	II MSc
D4	I MSc	II IT		I IT	II MSc
D5	I MSc	II IT		III 'B'	II IT
D6		I MSc	II IT		I IT

ALLIED COURSE-2 (SEMESTER-II)

COMPUTER HARDWARE AND TROUBLESHOOTING-U2R11TAC2

UNIT-I: Introduction to Computer Hardware.

Fundamentals of PC Technology: Building Blocks of PC - Principles of CPU Instructions - Multiprocessor; CPU operation - Troubleshooting of CPU.

UNIT-II: Memory Technqiues.

Memory: Memory works - Memory chips and modules Module sizes and banks of memory - DRAM Timing and memory types - Advanced Memory techniqiues - Trouble Shooting

UNIT-III Magnetic Storage Devices.

Megnetic Storage devices: Magnetic storage - H/D disk Storage device - Floppy disk Storage device - Cartridge devices - Troubleshooting of Magnetic Storage devices.

UNIT-IV optical Storage devices.

optical Storage device: optical Storage media - CDROM devices - DVD Drives - Recordable drives - Troubleshooting of optical Storage devices.

UNIT-V: I/O Devices.

Keyboards and pointing devices: keyboards - Pointing devices - video Sub Systems: video Adapters - Monitors.

UNIT-VI: Latest Learning (For CIA only)

Latest development related to the Course during the Semester Concerned.

Text Book:

PC Hardware - The complete Reference by Craig Zacker and John Rourke, Tata McGrawHill, 2001 Edition.

2/11/21

UNIT-I

11.1.2021.
IV | IV

Building Blocks of Computer.

What is Hardware ?.

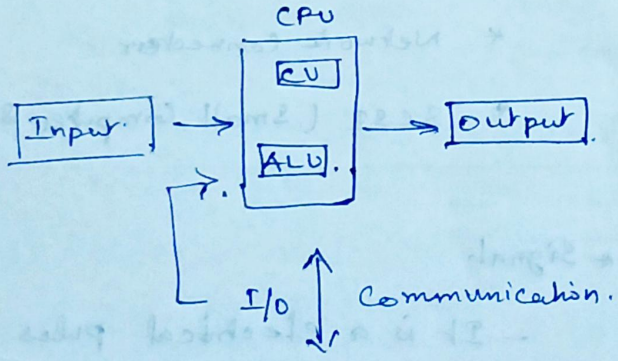
Physical Components of Computer is Called Hardware :

Important hardware device.

- Mother Board
- Harddisk
- RAM
- ROM
- SLOTS
- SMPS.

12.1.2021.
IV | IV

Block diagram of Computer :



Input → Computer accept the data.

CPU → It is a Microprocessor.

→ Main function of CPU

→ It is responsible for processing the data.

Important units of CPU.

→ Control unit (CU)
→ Arithmatic and Logic unit (ALU)
→ I/O Communication
→ Memory devices.

20.1.2021
VI | V

I/O External connectors:

- Different types of port:

- port is the communication interface use to connect computer peripheral device.

- Types of port.
  * Serial port
  * pairlel port
  * USB port
  * Audio port
  * video port
  * modam Connector
  * Network Connector
  * SCSI (Small Computer System interface)

21.1.2021
VI | V

* Signal.
  - It is a electrical pules.
  - Transfering data from one device to another device.

* Two type.
  - Analoge Signal
  - Digital Signal.

* Advantage and disadvanges.
* other Signal.

Laser printer:

↳ printer a laser beam is used for creating characters and image LCD and LED printers – printouts for multimedia files.

Video sub system:

↳ providing output display to the user showing the results.

Video card
↳ Internal board.

Monitor
↳ performance
↳ capacity
↳ Quality.

30.3.2021
IV | I

Trouble shooting the keyboard:

(i) The keyboard is not detected that is it is connected properly to the computer.

The keys on the keyboard do not work

The key do not strike correctly the keyboard is free of dirty, dust that is recommended compressed air.

wrong characters are typed.

---

1) It may be due to damaged part in the Computer.

2) They may be water are liqued are spread inside the key board.

30/3/21

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2020 - 2021

Even Semester

April 2021

H / D	1	2	3	4	5
D1		II MSC	III 'B'	III 'A'	I MSC
D2	III 'A'	III 'B'	III 'A'		III 'B'
D3	I MSC	II IT	III 'A'	I MSC	
D4	III 'B'		I MSC		II IT
D5		II MSC	I MSC		II 'A'
D6	II 'A'	II MSC	III 'B'	I MSC	

SUBJECT CODE : U6RJSTMBE3

SUBJECT NAME : SOFTWARE ENGINEERING.

UNIT I :

Introduction to Software Engineering : Introduction, Size factors - Quality and Productivity factors. Managerial Issues. Planning a Software project: Introduction - Defining the Problem - planning the development process - planning an Organizational Structure - Other Planning activities.

UNIT II :

Software Cost estimation : Introduction - Software Cost factors - Software Cost estimation techniques - Staffing level estimation - Estimating Software maintenance Costs. Software requirements definition: Introduction - The Software requirement Specification - Languages and processes for requirement Specification.

UNIT - III :

Software design : Introduction - Fundamentals design Concepts - Modules and modularization Criteria - Design notations - Design Techniques.

UNIT - IV :

Implementation Issues : Introduction - Structured Coding techniques - Coding Style - Standards and guidelines - Documentation guidelines.

UNIT - V:

verification and validation techniques: Introduction - Quality Assurance - walkthroughs and Inspections - Static analysis - Unit testing and debugging - System testing - Formal verification Software Maintenance: Maintenance Concepts.

TEXT Book:

Software Engineering Concepts, Richard E. Fairley, Tata McGraw Hill Publishing Company Limited. 2003 Reprint

Chapters:

Unit I - 1, 2.

Unit II - 3, 4

Unit III - 5

Unit IV - 6

Unit V - 8, 9.

Reference Book:

Pressman, Roger, S., Software Engineering A practitioner's approach. 5th edition McGraw Hill International edition, 2005 (ISBN 007-124083-7).

DATE: 4.1.21. DAY/HOUR: I/IV 'A' Sec
I/III 'B' Sec

Given Syllabus for Software Engineering.

Introduction.

Software Engineering is the technological and managerial discipline Concerned with systematic production and maintenance of Software Products that are developed and modified on time and within cost estimates.

DATE: 5.1.21 DAY/HOUR: I/IV 'A' & III 'B' Sec

Some Size Factors:

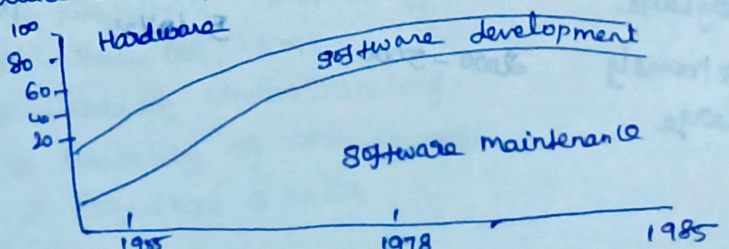
The level of effort devoted to Software development and maintenance, the distribution of effort among activities is presented; and size categories for Software projects are described.

* Total Effort Devoted to Software
* Distribution of Effort
* Project Size Categories
* How programmers Spend their time.

DATE: 6.1.21 DAY/HOUR: II/I 'A' Sec
VI 'B' Sec

Total Effort Devoted to Software.

* Estimated that the total amount Spent on all aspects of Computing in the United States in 1980 was approximately 5 percent of the Gross National product (GNP) or about $130 billion.

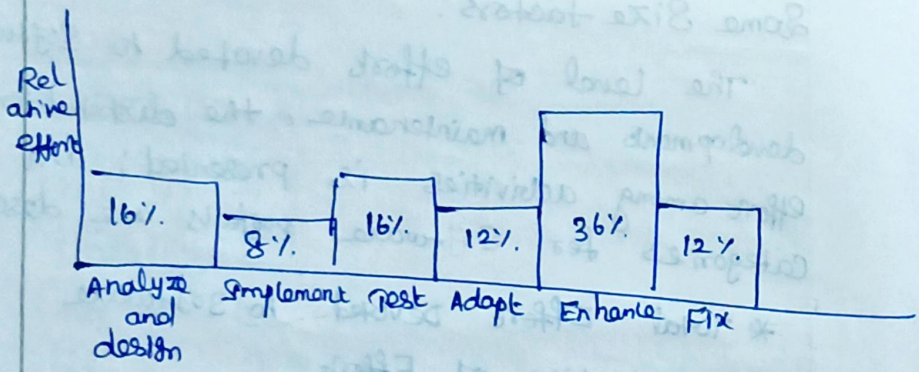


In 1960, the ratio was approximately 80 percent hardware cost and 20 percent Software cost.

Distribution of Effort:

The typical lifespan for a Software product 1 to 3 years in development and 5 to 15 years in use (maintenance).

The distribution of effort between development and maintenance has been variously reported as 40/60, 30/70 and even 10/90.



Distribution of effort in the Software life cycle.

project Size categories:

Category	Number of programmers	Duration	product Size
Trivial	1	1-4 wks	500 Source line
Small	1	1-6 mos	1k-2k
Medium	2-5	1-2 Yrs	5k-50k
Large	5-20	2-3 Yrs.	50k-100k
Very Large	100-1000	4-5 Yrs	1M
Extremely large	2000-5000	5-10 Yrs.	1M-10M.

Program Volume V

$V = (N1 + N2) \log_2 (n1 + n2)$

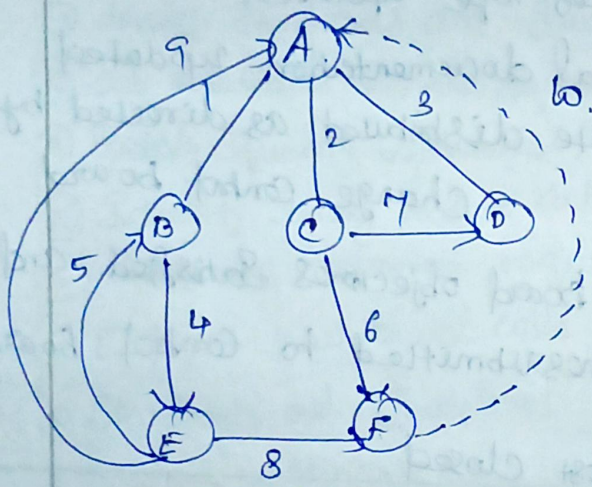
McCabe's Cyclomatic Metric

$V(G) = E - n + 2p$

E - number of Edges

n - number of nodes

p - the number of Connected Components



Entry node a & Exit node f.

$V(G) = 9 - 6 + 2 = 5$

Other Maintenance tools and techniques.

Automated tools for Software Maintenance

Text Editor

Debugging aids

Program reference generators

Linkage editors

Comparators

Complexity metric calculators

Version Control Systems

Program Management database.

NOTES OF LESSON.

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2020-2021

Even Semester.

April 2021

DAY / HOUR	1	2	3	4	5
D1	I MSC		III 'A'	III 'B'	II MSC
D2	III B		I MSC	GS 'B'	III 'A'
D3	II MSC	III B		GS 'A'	I MSC
D4		II MSC	III 'B'	I MSC	GS 'B'
D5	III 'A'	III B		I MSC	
D6	I MSC	III 'A'		III 'B'	GS 'A'

CLASS :

DAY / HOUR	1	2	3	4	5
D1	CN	VB	SE	ASP	VB
D2	ASP	SE	CN	GS	SE
D3	VB	VB LAB			CN
D4	SE	VB	ASP	IDC	GS
D5	VB	VB LAB			CN
D6	VB	CN	SE	ASP	IDC

ASP PROGRAMMING

UNIT: 1

Introduction to Asp - Asp Model - Asp file - Process of Serving an Asp.

UNIT : 2

Using Scripting languages - setting the Primary Scripting Language - Including other files.

UNIT : 3

Understanding objects - Understanding Components - Working with users.

UNIT : 4

Working with HTML forms - Retrieving form data - using text boxes & text area.

UNIT : 5

Cookies - Working With cookies - Using Cookies in Asp Applications - Using Sessions.

Text Book:

"Practical Asp" - Ivan Bayross, BP publication 2000.

2/1/21

4.1.21 I - 3, 4 HR (III 'A', III 'B')

Introduction to Asp

Definition:

Active Server page is a Server Side Scripting Languages used to Create dynamic web pages.

Asp following Web Servers:

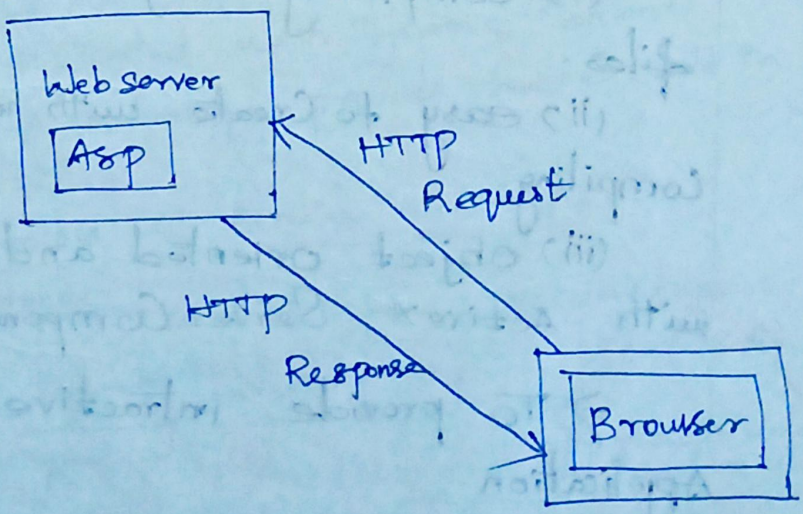
→ Microsoft Internet Information Server Version 4.0 on windows NT Server.

→ Microsoft Peer Web Service Version 3.0 on windows NT Workstation

→ Microsoft personal Web Server on windows 95/98.

5.1.21 I - 3, 4 HR (III 'A', III 'B')

Asp Model



6.1.21 II - 1,4H,5H [III B, III A]

Asp file

An Asp file is a text file a
Content any Combination of the followi

1. Text
2. HTML
3. Script Command.

↓

instruct the Computer to do Some

⇒ easy to Create
⇒ Rename any html file Replacing th
existing
⇒ HTML extension with. Asp.

7.1.21 II - 1,4H,5H [III B, III A]

Asp Applications

Inclusion of executable Scripts directly in HTml files.

(i) Completely integrated into Html files.

(ii) easy to Create with no manual Compiling

(iii) object oriented and extensible with ActiveX Server Component

⇒ To provide intractive business Application

17.3.21 II DO - 2, 5 Hr - 'A'

Using Cookie in Asp Application:

Creating Cookie

Response.Cookies(Name) = Value

Ex:

Response.Cookies("Time Zone") = "Eastern"

Setting Attributes of Cookies

Syntax:

Response.Cookies(Name).Cookieattribute = Value.

Ex

Response.Cookies("Time zone").Expires = "Feb 28, 2020".

Storing Multiple value in a Cookies

Syntax

Response.Cookies(Name)("Keys") = Value

Ex: Portion Completed

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2020-2021

Even. Semester

April 2021

Day \ HR	1	2	3	4	5
D1	III 'B'	III 'A'		III B	III A
D2	III B	IMSC		IMSC	
D3	III A	III 'A' Lab →			
D4	III B		III 'A'	III B	IMSC
D5	III A	III 'B'			IMSC
D6	III 'A'		III 'B'	IMSC	

VB.NET [U6RITCC13]

UNIT-1: BASICS OF VB.NET

Introduction: The .net Framework and common language runtime - The visual basic integrated development environment - operators - conditional and looping statements - procedures - scope - Exception Handling.

UNIT-2: WINDOWS FORMS AND BASIC CONTROLS

All about windows Forms - Textbox - Label - Link Label - Button - checkbox - Radio Button - panels - Group boxes - Messagebox - Inputbox - Listbox - checked listbox - combo box - pixture box.

UNIT-3: SPECIALIZED CONTROLS

Scrollbar - splitters - Trace bars - pickers - Notify Icons - TOOl TIPS - Timers - Menus - Built in Dialog boxes - printing.

UNIT-4: ADVANCED CONTROLS

Image list - Tree view - List view - Toolbar - status bar - progress bar - Tab.

UNIT-5: DATA ACCESS WITH ADO.NET

Databases - Accessing Data with the Server Explorer - Accessing data with Data Adapter and datasets - working with ADO.NET - overview of ADO.NET objects.

TEXT BOOK

visual Basic .net programming Black Book by Steven Holzner, Dreamtech press 2010 Edition.

chapters

unit-1 (ch-1,2,3)

unit-2 (ch-4,5,6 & 7)

unit-3 (ch-8,9)

unit-4 (ch-10)

unit-5 (ch-21)

2/11/21

04/01/21 Introduction

D1/I

=> .Net Framework is the software environment which provides facility for developing and executing different types of applications such as

* web applications
* windows applications
* console applications.

=> It is developed by Microsoft company.

08/01/21 Features of .NET Framework

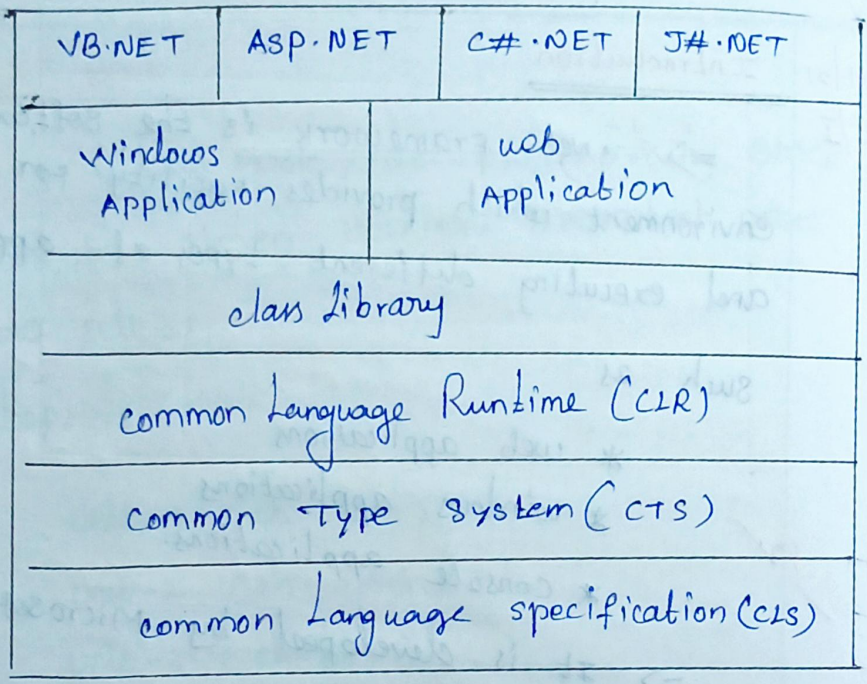
D3/V

=> The features of .NET Framework are :-

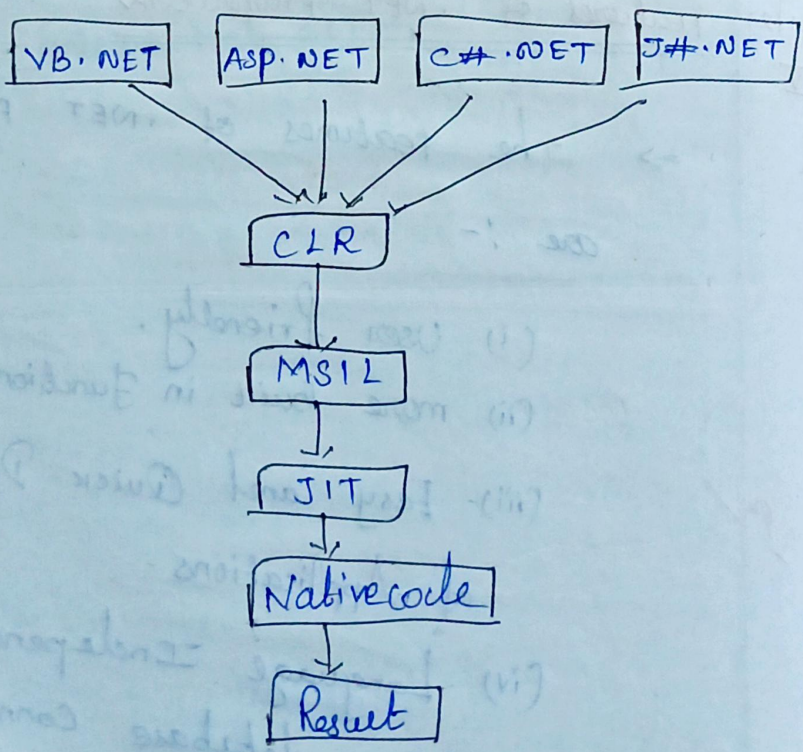
(i) User friendly.
(ii) more built in function & controls.
(iii) Easy and Quick Development of Applications.
(iv) Language Independent
(v) Easy database connection
(vi) Easy Debugging
(vii) web Services.

09.01.22 .NET Framework Architecture & CLR

D3 I, V



⇒ CLR

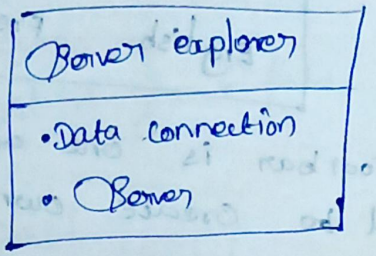


22/02/21 Data Access with ADO.Net

D6/I-A' => Database is the collection of Records stored together without Redundancy.

25.02.21

D1/I,IV-B' => Accessing data with the Server Explorer



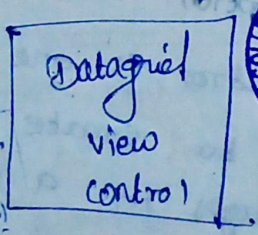
=> View -> Server explorer -> Connect Database
-> Braose -> MS Access Database -oledb
-> DB -> Test Connection.

23/02/21 Accessing data with data adaptor

D6/I-A'

26.2.21

D2/I-B' => ADO.Net (Active-x Data objects) provides the object called data adaptor to find the data into the VB.net controls such as data Gridview, comboBox, Listbox,



Con = new OledbConnection(" provider = Microsoft. Jet OLEDB.4.0; data Source = C:\database.mdb).

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2020 - 2021
Even Semester
April 2021

DAY / HOUR	1	2	3	4	5
D1	I-B.Sc (C)			I-M.Sc CC	II-'A' Linux
D2	II-'B' Linux	I-B.Sc (C)		III-B	II-'B' Linux
D3	II-'A'	I-B.Sc	II-'B'		
D4		II-'B'		I-B.Sc (C Lab)	
D5	II-'B'		I-B.Sc (C)		II-'A'
D6	II-'A'	I-B.Sc		I-M.Sc	II-A

II - B.SC - IT

LINUX AND SHELL PROGRAMMING [U4RIITAC6]

UNIT-1 : UNIX ARCHITECTURE

UNIX Architecture - Features of UNIX - General Purpose Utilities : cal, date, echo, Printf, bc, Script - Mail Basics - Mailx, Passwd, who, uname, tty, and stty.

UNIT-2 : THE FILE SYSTEM

The File what's in a File Name? - Pwd, cd, mkdir, rmdir - Is Listing Directory - UNIX File System - The Vi editor.

UNIT-3 : HANDLING ORDINARY FILE SYSTEM

Handling ordinary Files : cat, cp, rm, mv, more, wc, od, cmp, comm., diff - Basic File Attributes : ls-l, -d option - File Permissions - Chmod - Directory Permissions.

UNIT-4 : THE SHELL

The shell's Interpretive Cycle - Shell offering - Pattern Matching - Escaping and quoting - Redirecting - Pipes - tee - Shell Variable - Process basics - PS - System Process - nice - killing Processess with signals - at and batch - Cron - time.

UNIT-5: CONTROL STATEMENT AND OPERATOR

Essential shell Programming: read, using command line argument - exit - if - test - case - esac - logical operators - while - for - trap.

UNIT-6: LATEST TECHNOLOGY

TEXT BOOK

UNIX Concepts and Applications Sumitabha Das, 4th edition, MC Graw Hill Educations.

Unit-1 (Ch-2,3)
Unit-2 (Ch-4,7)
Unit-3 (Ch-5,6)
Unit-4 (Ch-8,9)
Unit-5 (Ch-12,13,14).

8/2/21 & 9/2/21

D1/V

Define: mailx

mailx - a character-based mail agent that can do that.

There are two ways of invoking mailx.

(i) The sending and receiving modes.

(ii) The receiving mode, you generally use it without arguments to handle your received mail.

```
$mailx charlie
Subject: New System
mailx -s "New System" -c "jpm, sumit" charlie <message.txt
```

11/2/21 & 10/2/21

D2/V

Define: stty

stty - Displaying and setting Terminal characteristics.

stty uses a very large number of keywords, but we'll consider only a handful of them.

```
$ stty -a
speed 38400 baud; rows=25, columns=80, ypixels=0;
xpixels=0;
....
```

stty displays and sets various terminal attributes you can define the key that interrupts a program.

12/2/21 & 15/2/21

D3/I&III

D3/I & III 1st hr

what is a meaning of file?

The file is a container for storing information It simply as a sequence of characters.

Types of files: (i) ordinary file
(ii) Directory file
(iii) Device file.

16/2/21 & 17/2/21 — D4 / II^nd hr - II-B'

Ordinary file

An ordinary file or regular file is the most common file type. All Programs you write belong to this type. An ordinary file itself can be divided into two types.

(i) Text file
(ii) Binary file.

18/2/21 & 19/2/21 — D5 / III & IV^th.

D5 III & IV

Parent-Child Relationship

All files in UNIX are "related" to one another. The file system in UNIX is a collection of all of these related files (ordinary, directory and device files), organized in a hierarchical (an inverted tree) structured.

root is actually a directory. It is conceptually different from the user-id root used by the system administrator to log in.

the home directory is the Parent of the Grandfather of the files.

22/2/21 Casual Leave.

A script containing the following trap statement will not be affected by three signals, this time we'll use the signal numbers:

trap "" 1 2 15 // script can't be killed by normal means.

Multiple trap commands in a script each one overrides the previous one.