BLDEA's

S.B. Arts and K.C.P. Science College, Vijayapur

Department of Computer Science

REPORT

ON

STUDENT SEMINAR

FOR THE ACADEMIC YEAR 2023-24

(ODD SEMESTER)

Policy documentation for advanced learners

- Introduction
- Advanced learners
- Identification for advanced learners
- Activities for advanced learners
- Method of assessment

Introduction

Advanced learners

Advanced learners are those students who have more potential with the regard to critical, creative thinking and contextualizing and practical. They are hardworking, goal oriented, achieve high scores and should have higher level of academic responsibilities. They can be also moulded in teaching learning activities.

Guidelines for identifying Advanced Learners:

Advanced Learners are identified based on the first internal examinations those who secured greater than 80%.

Activities conducted for Advanced Learners:

- Students were performed the seminar on given topics.

Prof. S. G. Joshi
HEAD OF THE
BSc Computer Science Department
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VIJAYAPURA-586103

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S. B. ARTS AND K. C. P. SCIENCE COLLEGE
nt. BangarammaSajjan Campus, Shri B. M. Patil Road (Solapur Road), Vijayapur-586 103
Accredited with CGPA of 2.99 at 'B++' Grade in 4th Cycle by NAAC
(Affiliated to Rani Channamma University, Belagavi)

Date :29 /1/2024

DEPARTMENT OF COMPUTER SCIENCE

NOTICE

The department will be conducting seminars for BSc I, III and V semester students (Advanced learners)of the academic year 2023-24(odd semester) from 2/2/2024 to 6/2/2024.

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LIST OF ADVANCED LEARNERS

Sl. No	Reg. No.	Name of the Student	Class
1	U15KM23S0099	VISHNU B K	BSc I
2	U15KM23S0162	NAGARAJ MYAGERI	BSc I
3	U15KM23S0083	SHANKARALINGA KOBALA	BSc I
4	U15KM23S0197	SUKANYA YASHAWANT BAGALI	BSc I
5	U15KM23S0184	BHAGYASHREE BIRADAR	BSc I
6	U15KM23S0226	JAYALAXMI HATTALE	BSc I
7	U15KM23S0355	NETRA NANGOUD TEGGELLI	BSc I
8	U15KM23S0145	AKSHATA ARAVIND KHAVEKAR	BSc I
9	U15KM22S0029	AISHWARYA KOLI	BSc III
10	U15KM22S0072	VIJAYALAXMI HADIMANI	BSc III
11	U15KM22S0107	MAHIBOOBADADA MAKANDARA	BSc III
12	U15KM22S0115	BALIKAI PREETI KESHAV	BSc III
13	U15KM22S0116	DIVYA DAYANANDA KAPSE	BSc III
14	U15KM22S0117	RAJESHWARI KAPASE	BSc III
15	U15KM22S0119	POOJA GURANING MAIGUR	BSc III
16	U15KM22S0120	ARSHAD PATEL PATIL	BSc III
17	U15KM22S0124	ALFIYA CHOUDHARI	BSc III
18	U15KM22S0178	APEKSHA PRAKASH HIRANDAGI	BSc III
19	U15KM21S0093	RAKESH RAVI KAVALE	BSc V
20	U15KM21S0099	AKSHITA WALIKAR	BSc V
21	U15KM21S0102	SRUSHTI	BSc V
22	U15KM21S0111	PREMA MAGADHARI	BSc V
23	U15KM21S0148	NIKHEETA MOHAN PAWAR	BSc V
24	U15KM21S0167	GOURI LAXMAN BIRADAR	BSc V
25	U15KM21S0183	MAAZ MAHAMADILIYAS PENDARI	BSc V
26	U15KM21S0195	RAHUL SAHEBAGOUD PATIL	BSc V
27	U15KM21S0202	PREM VIJAY FAKIRAPUR	BSc V
28	U15KM21S0205	GUNJIT PARVEEN SONI	BSc V
29	U15KM21S0233	SRUSHTI HORTI	BSc V
30	U15KM21S0235	SIDDU SANGAYYA DUMMANAVAR	BSc V
31	U15KM21S0254	SHREEDHAR APPASAB KUMATHALLI	BSc V
32	U15KM21S0306	BHAGYASHREE SHIVARAY HALAGUNAKI	BSc V
33	U15KM21S0358	SANGEETA SHREESHAIL KOLAKAR	BSc V
34	U15KM21S0365	POOJA VITHAL KOLAKAR	BSc V
35	U15KM21S0385	PRAJVAL TUKARAM RATHOD	BSc V
36	U15KM21S0412	VISHAL SANTOSHKUMAR SARUR	BSc V
37	U15KM21S0414	AKASH NANAGOUDA HANDIGANUR	BSc V
38	U15KM21S0419	SAHANA MADIWALAPPA DHANASHETTI	BSc V
39	U15KM21S0420	SAKSHI	BSc V
40	U15KM21S0506	RAGINI DWIVEDI	BSc V

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Date :8/2/2024

DEPARTMENT OF COMPUTER SCIENCE

Seminar Report

The Department of Computer Science conducted the seminars for Advanced Learners of B.Sc. I, III and V semesters. Students have given seminars on the chapters covered in their syllabus and also new topics given by the faculties. Each student is given 10 minutes for the seminar, which covers 8 minutes for the seminar and 2 minutes for discussion.

The objective of conducting the seminars was to help the students to improve their knowledge and skills.

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Date : 10/8/2024

DEPARTMENT OF COMPUTER SCIENCE

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The department will be conducting seminars for BSc II, IV and VI semester students (Advanced learners) of the academic year 2023-24 from 12/8/2024 to 16/8/2024.

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DEPARTMENT OF COMPUTER SCIENCE

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1	U15KM23S0042	POOJA PRAKASH KOKATANUR	BSc II
2	U15KM23S0162	NAGARAJ MYAGERI	BSc II
3	U15KM23S0184	BHAGYASHREE BIRADAR	BSc II
4	U15KM23S0197	SUKANYA YASHAWANT BAGALI	BSc II
5	U15KM23S0216	SUNITA BASAGONDA BIRADAR	BSc II
6	U15KM23S0348	POOJA NADAGOUDA	BSc II
7	U15KM23S0355	NETRA NANGOUD TEGGELLI	BSc II
8	U15KM23S0290	POOJA MANJUNATH TELLUR	BSc II
9	U15KM23S0047	AKSHATA VITTAL HIREKOL	BSc II
10	U15KM23S0051	AMBIKA KALLAPPA KAJURAGI	BSc II
11	U15KM23S0057	SHAILASHREE MADDEPPAGOL	BSc II
12	U15KM23S0099	VISHNU B K	BSc II
13	U15KM23S0145	AKSHATA ARAVIND KHAVEKAR	BSc II
14	U15KM23S0176	SHREYA MALHARI	BSc II
15	U15KM23S0181	PRIYA GANAPATI NIJAGUNI	BSc II
16	U15KM23S0204	SUNANDAMMA KOTIKHANI	BSc II
17	U15KM23S0214	AKASH BALLARI	BSc II
18	U15KM23S0226	JAYALAXMI HATTALE	BSc II
19	U15KM23S0228	SAMARTH MASALI	BSc II
20	U15KM23S0140	SHIVARUDRAYYA VASTRAD	BSc II
21	U15KM23S0177	VIJAYLAXMI MALHARI	BSc II
22	U15KM23S0221	PURVIKA KASHINATH KUMBAR	BSc II
23	U15KM23S0142	SHIVANANDA KALYANI	BSc II
24	U15KM23S0004	PRATEEKSHA SHELAMKAR	BSc II
25	U15KM23S0005	PRIYA VITHAL BENKI	BSc II
26	U15KM23S0007	SHIVANAND S BURANAPUR	BSc II
27	U15KM23S0083	SHANKARALINGA KOBALA	BSc II
28	U15KM23S0085	BHAGYASHREE KARAJOL	BSc II
29	U15KM23S0212	VANISHREE DUNDAPPA JEER	BSc II
30	U15KM22S0119	POOJA GURANING MAIGUR	BSc IV
31	U15KM22S0124	ALFIYA CHOUDHARI	BSc IV
32	U15KM22S0197	BASAMMA ASHOK ITTANGIHAL	BSc IV
33	U15KM22S0278	VAISHNAVI	BSc IV
34	U15KM22S0115	BALIKAI PREETI KESHAV	BSc IV
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42	U15KM22S0168	CHAITRA SAGAR	BSc IV
43	U15KM22S0179	ASHARANI BASAVARAJ BHALI	BSc IV
44	U15KM22S0192	SHUBHANGI SHANTAVEER BIRADAR	BSc IV
45	U15KM21S0014	LAXMI NARASINGH RAJPUT	BSc VI
46	U15KM21S0111	PREMA MAGADHARI	BSc VI
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56	U15KM21S0501	KAVYA UMADI	BSc VI
57	U15KM21S0503	SAVITA BABU CHAVAN	BSc VI
58	U15KM21S0506	RAGINI DWIVEDI	BSc VI
59	U15KM21S0559	GEETA KOLAKAR	BSc VI
60	U15KM21S0569	GURUDARSHAN YEGAPPA SAKRI	BSc VI

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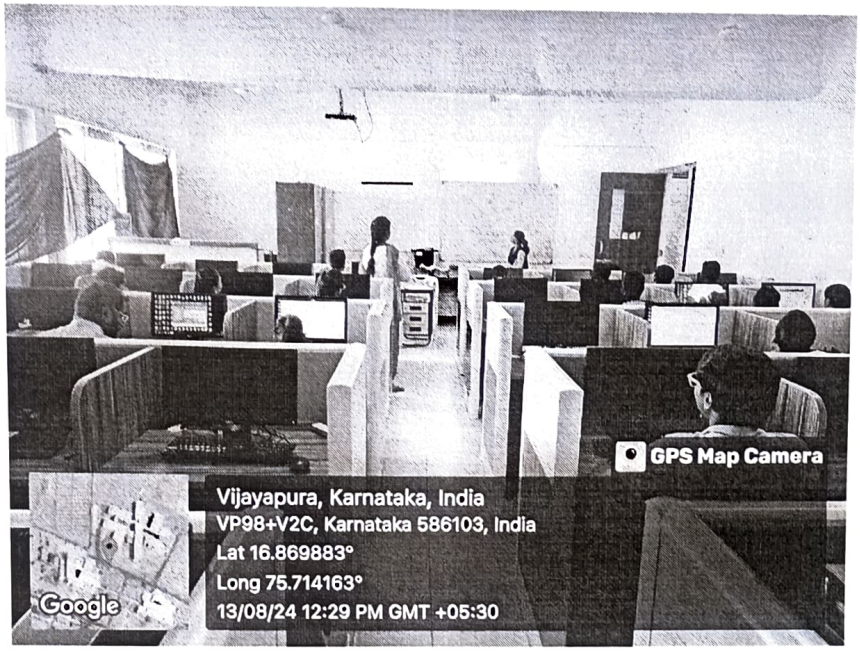
DEPARTMENT OF COMPUTER SCIENCE

GLIMPSES OF STUDENT SEMINARS



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S.B ARTS AND KCP SCIENCE COLLEGE VIJAYAPUR

Name :- Sprina. S. Umarji

UUCMS No:- UIJKM21S0091

Sub :- Computer network

Sem :- 5th Sem

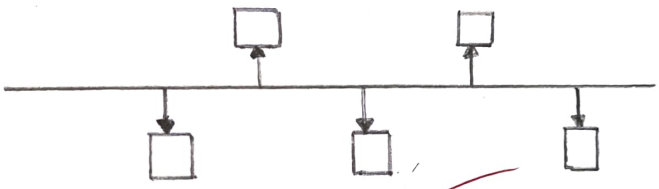
topic name :- Topology

Guided by :- L.A. Nucchimath.

① what is meant by topology & explain their type.

⇒ In A computer network. topology is a arrangement with which computer network or network device are connected to each other. topologies may define both physical & logical aspect of network.

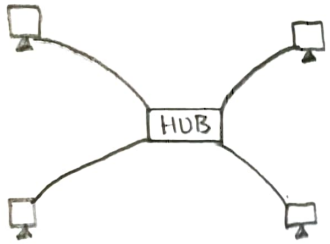
* Bus topology :- All device share single Communication line or cable.
  * Bus topology may have problem while multiple host sending data at the same time.
  * It is one of the simple form of networking where a failure of a device don't effect the other device but failure of shared Communication line can make all other devices stop functioning



Advantages :- * Bus topology include ease of installation
  * Bus uses less Cabling than mesh or star topology

Disadvantages :- * Difficult reconnection & fault isolation
  * A fault or break in bus cable stops all transmission even between device on the same side of problem.

* Star topology :- All host in star topology are connected to a Central device known as hub device using Point to point connection
  * There exist a point to point connection b/w host & hub
  * hub act as single point of failure. if hub fails Connectivity of all host to all other host fails
  * every Communication between, take place through only hub



Advantage :- * A star topology is less expensive than a mesh topology

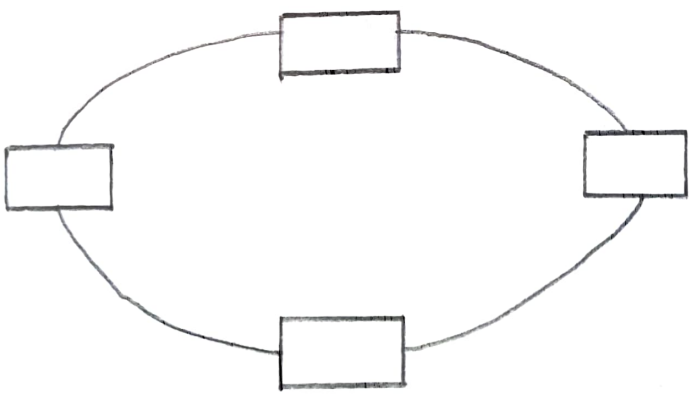
* In star, each device need only one link and one I/O port to connect it to any number of other

Disadvantage :- * Each node must be linked to a central hub

* The dependency of the whole topology on one single point, the hub if the hub goes down the whole system is dead.

* Ring topology :- * each host machine connect to exactly two other machine creating a circular network structure.

* when one host tries to communicate or send message to a host which is not adjacent to it, the data travel through all intermediate host

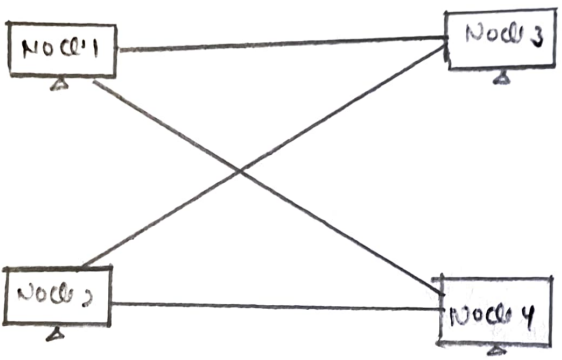


Advantage :- * A ring is relatively easy to install & reconfigure

* fault isolation is simplified

Disadvantage :- * Unidirectional traffic can be disadvantage
* In a simple ring, a break in ring can disable the entire network

* Mesh topology :- * Mesh topology is arrangement of network in which computers are interconnected with each other through various redundant connection
* There are multiple path from one computer to another
* It does not contain the switch, hub or any central computer which act as a central point of communication



Advantage :- Mesh topology is robust. If one link became damaged it does not incapacitate the entire system
* Point to point link make fault identification & fault isolation easy.

Disadvantage :- * Amount of cabling and the number of I/O port required
* The hardware required to connect each link

* hybrid topology :- * Combination of various different topologies
* A hybrid topology is connection between different link & node to transfer the data

Advantage :- * Reliable
* Scalable

Disadvantage :- * costly hub
* complex design

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S.B.ARTS & KCP SCIENCE COLLEGE VIJAYAPUR

Department of computer science

SEMINAR ON

- Scope and Lifetime of variables
- Recursion [Example]

Name : Gouri. L. Biradar

UUCMS.NO : U15KM21S0167.

Class : Vth sem

Subject : Python.

Scope and Lifetime of variables

10/10

Scope of variable is the portion of a program where the variable is recognized. Parameters and variable is recognized parameters and variables defined inside a function is not visible from outside.

There are two types of scope for variables:

1. Local scope
2. Global scope.

1. Local scope:- variable used inside the function. it can not be accessed outside the function. In this scope, the lifetime of variables inside a function is as long as the function executes. They are destroyed once we return from the function. Hence, a function doesnot remember the value of a variable from its previous calls.

2. Global scope:- variable can be accessed outside the function in this scope, Lifetime of a variable is the period throughout which the variable exits the the memory.

Example :

```
def my_Fun():
    x = 10
    print("value inside Function :",x)
    x = 20
    my_Fun()
    print("value outside Function :",x)
```

Output :

```
value inside Function : 10 value outside Function: 20
```

Here, we can see that the value of x is 20 initially. Even though the function my_Fun() changed the value of x to 10, it did not affect the value outside the function.

RECURSION

Definition: A function calls itself, is called recursion

Python program to find the factorial of a number using recursion:

Program:

```
def factorial(n): if n==1:
    return n else:
    return n*factorial(n-1)
num = int(input("enter the number:"))
if num<0:
    print("Sorry, factorial does not exist for negative numbers")
elif num==0:
    print("the factorial of 0 is 1")
else:
    print("The factorial of ",num," is,"
    factorial(num))
```

Output:-

```
enter the number:5
The factorial of 5 is 120.
```

R - Introduction.

What is R

R is a popular programming language used for statical Computing and graphical presentation.

It is most commonly used to analyze and visualize data.

Why we Use R.

* It is a great Resource for data analysis, data Visualization, data Science and Machine learning.
* It provides Many Statical Techniques (Such as statical tests, classification, clustering ~~the~~ and data reduction.
* It is easy to draw graphs in R, like pie charts, histograms, box plot, scatter plot, etc.
* It works on different platforms (Windows Mac, Linux)

Basic Data Types

1 Numeric - [10.5, 55,787]

2 Integer - 1L, 55L, 100L, where "L" declares this is an integer.

3 Complex - (a + 3i where "i" is the imaginary part)

4 Character (a.k.a String)

5 logical (Boolean TRUE or False)

We can use the class() function to check the type of variable

```
# Numeric
x <- 10.5
class(x)

# integer
x <- 1000L
class(x)
```

Numbers

There are three number types in R.

* Numeric
* integer.
* Complex.

Numeric

```
x <- 10.5 # Numeric

y <- 10L # integer

z <- 1i # Complex
```

Type Conversion

you can Convert from one type to another data type with the following functions:

* as.numeric()
* as.integer()
* as.Complex()

```
x <- 1L # integer
y <- 2 # numeric
```

Convert from integer to numeric:

```
a <- as.numeric(x)
```

convert from numeric to integer.

```
a <- as.integer(y)
```