THE SURE TRUST

Skill Upgradation for Rural-youth Empowerment Trust

Data structures and algorithms in python
(G2_DSA IN PYTHON)

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QUALIFICATION : BTECH [3RD YEAR]

COURSE REPORT :

SUMMARY :

The SURE TRUST offers every course free of costwith no financial burden of any kind to students. This initiative is purely a service-oriented one aiming to guide the rural youth who are educated but unemployed due to lack of upgradation in their skill sets.

INTRODUCTION :

"SURE Trust is a skill-bridging initiative established to offer free training in emerging and industry-relevant technologies to educated unemployed rural youth for enhancing the employability."

The SURE TRUST is born to enhance the employability of educated unemployed rural youth. It is observed that there is a wide gap between the skills acquired by students from the academic institutions and the skills required by the industry to employ them. Employability enhancement is done through giving one on one training in emerging technologies, completely through online mode

what I learned :

from this course first I learned the difference between data structures and algorithams in data structures These are ways to organize and store data in a computer, enabling efficient access, modification, and manipulation of that data. Common data structures include:arrays,linked list,stack and queue,trees,graphs

the Algorithms are step-by-step procedures or instructions for solving problems, performing computations, or accomplishing specific tasks. They work on data structures to achieve various objectives such as searching, sorting, pathfinding, and more. Common algorithms include:sorting,searching,graph,dynamic algorithams.

What I took away from the course :

from this course I learnt the major thing is time Management and how to balance the both studies and other things because from this course I manage both my studies and the course which I was taken and desciplane especially because in everyhumn life without desciplane they cant achieve any thing soo by attending LST sessions I learned the desciplane and provide services for others playing a key role in our life. By the guidelines of samuel john sir I completed this course and now I know how to make programs or projects on data structure and algorithams.

ASSIGNMENT EXPERIENCE :

I implemented the programs which are related to datastructures and algorithams those are traversals,linkedlist implimentation,stack,circular queue implementation,searching and sorting techniques…

when I was doing all this things I learned what are required things to implement a program and learned how the program is executed and when I was doing the programs I felt difficult but by the help of our mentor I will resolve all those problems.

ASSIGNMENTS:

1) implementing traversals of binary tree(inorder,preorder,postorder,levelorder)

https://github.com/3bindu/22bindu

2)implementing Basic sorting Algorithms(binary,bubble,insertion,linear,merge,selection)

https://github.com/3bindu/bindu2

3)implementing sorting algorithms (bucket,heap,linear,radix)
https://github.com/3bindu/bindu7

4)implementing programs on binarytree,factorial,fibonocci series
https://github.com/3bindu/8bindu

5)implementing Programs on insertion and deletion of an an element in circular queue

https://github.com/3bindu/6bindu

6)implementing Stack creation and deletion

https://github.com/3bindu/5bindu

7)implementing program on creation of linkedlist

https://github.com/3bindu/22bindu

conclusion :

In conclusion Throughout this course, I've grasped the importance of efficient data organization and retrieval, enabling me to approach programming challenges with a structured mindset. The hands-on coding exercises and projects have not only refined my coding skills but also instilled confidence in implementing efficient solutions.Overall, the data structures and algorithms course has been an invaluable stepping stone in my academic and professional journey, empowering me with the essential skills and mindset to tackle complex computational problems with clarity and precision.