

## Unit 1

Consider following statements and explain the type of data which is needed with justification
<ol style="list-style-type: none"> <li>1) marks for a student</li> <li>2) gender</li> <li>3) berth allocated in train</li> <li>4) number of home runs in a baseball game</li> <li>5) height of children.</li> </ol>
Explain in what way data and information is different? (any 5 points) Give examples
Write short notes on <b>Demographic data, Transactional data, Web behaviour data, Data from customer-created texts and spatial data (each 5 marks)</b>
Summarize the importance of data in data science
<b>Short notes on the role of Data Science in following fields</b> <ol style="list-style-type: none"> <li>1) fraud detection</li> <li>2) health care</li> <li>3) travel</li> <li>4) marketing</li> <li>5) social media each 5 marks</li> </ol>
Short notes on the role of data mining in following fields <ul style="list-style-type: none"> <li>• Pattern discovery</li> <li>• Anomaly Detection</li> <li>• Market Basket Analysis</li> <li>• Healthcare Decision Support</li> <li>• Scientific Research each 5 marks</li> </ul>
Draw and explain Design KDD process for identifying knowledge from dataset.
In research industry propose the role of big data?
How will you design the architecture of data warehouse? Draw neat diagram to explain
Propose comparative analysis of data warehouse and DBMS
Demonstrate the need of IDE by considering following parameters: <ol style="list-style-type: none"> <li>1) Features</li> <li>2) definition.</li> </ol>
Demonstrate any 5 advantages of IDE with suitable example
How would you present various Factors to be considered before collection of data
Demonstrate various features of IDE
Rohan is doing a research on Identifying prediction of disease. Demonstrate the uses of IDE as tool to perform his research and development.
Evaluate the role of <b>data management which</b> plays a vital role in growth of business.
Justify various components used in data management with neat diagram
Evaluate different types of data management one can consider while doing a research
According to you justify the importance of data management with respect to medical research( in case of COVID COVISHIELD development
Evaluate data management process in brief by suitable diagram

Examine working of np.eye v/s np.identity with the help of python code
<p>Create 1 D array with 10 elements.</p> <p>replace all even numbers with 0 without changing original array</p> <p>Extract all elements from array &gt;5 and &lt; 90</p> <p>Analyse the working of python code in simple words</p>
Examine the working of python program to print square and cube of elements from array and to print unique elements from array
Examine working of python program to create a 3x3 identity matrix and place it vertically and horizontally.
Write a python code to demonstrate various operations using numpy
Note on the role of pandas with example