**DAILY ASSESSMENT FORMAT**

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| **Date:** | 22ndMay 2020 | **Name:** | Varshini MN |
| **Course:** | TCS ION | **USN:** | 4AL16EC089 |
| **Topic:** | Understand Aritificial Intelligence (AI) – Part 1  Understand Aritificial Intelligence (AI) – Part 2  Assessment | **Semester & Section:** | 8thB |
| **Github Repository:** | varshinimn-test |  |  |

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| **FORENOON SESSION DETAILS** |
| **Image of session** |
| **Report:**  **Artificial Intelligence:**  [Artificial intelligence](https://www.investopedia.com/articles/investing/072215/investors-turn-artificial-intelligence.asp) (AI) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions. The term may also be applied to any machine that exhibits traits associated with a human mind such as learning and problem-solving.  The ideal characteristic of artificial intelligence is its ability to rationalize and take actions that have the best chance of achieving a specific goal.  **Application of Artificial Intelligence:**  The applications for artificial intelligence are endless. The technology can be applied to many different sectors and industries. AI is being tested and used in the healthcare industry for dosing drugs and different treatment in patients, and for surgical procedures in the operating room.  Other examples of machines with artificial intelligence include computers that play chess and [self-driving cars](https://www.investopedia.com/articles/investing/052014/how-googles-selfdriving-car-will-change-everything.asp). Each of these machines must weigh the consequences of any action they take, as each action will impact the end result. In chess, the end result is winning the game. For self-driving cars, the computer system must account for all external data and compute it to act in a way that prevents a collision.  Artificial intelligence also has applications in the financial industry, where it is used to detect and flag activity in banking and finance such as unusual debit card usage and large account depositsall of which help a bank's fraud department. Applications for AI are also being used to help streamline and make trading easier. This is done by making supply, demand, and pricing of securities easier to estimate.  **Categorization of Artificial Intelligence:**  Artificial intelligence can be divided into two different categories: weak and strong.  [Weak artificial intelligence](https://www.investopedia.com/terms/w/weak-ai.asp) embodies a system designed to carry out one particular job. Weak AI systems include video games such as the chess example from above and personal assistants such as Amazon's Alexa and Apple's Siri. You ask the assistant a question, it answers it for you.  [Strong artificial intelligence](https://www.investopedia.com/terms/s/strong-ai.asp) systems are systems that carry on the tasks considered to be human-like. These tend to be more complex and complicated systems. They are programmed to handle situations in which they may be required to problem solve without having a person intervene. These kinds of systems can be found in applications like self-driving cars or in hospital operating rooms.  **Certificate:** |

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| **Date:** | 22nd May 2020 | **Name:** | Varshini MN |
| **Course:** | UDEMY | **USN:** | 4AL16EC089 |
| **Topic:** | PYTHON:  Application 2: Create Webmaps with Python and Folium  Fixing Programming Errors | **Semester & Section:** | 8th B |

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| **AFTERNOON SESSION DETAILS** |
| **Image of session** |
| **Report**  Pandas is a Python library that provides extensive means for data analysis. Data scientists often work with data stored in table formats like .csv, .tsv, or .xlsx.  Pandas makes it very convenient to load, process, and analyze such tabular data using SQL-like queries. In conjunction with Matplotlib and Seaborn, Pandas provides a wide range of opportunities for visual analysis of tabular data.  The main data structures in Pandas are implemented with Series and DataFrame classes. The former is a one-dimensional indexed array of some fixed data type.  The latter is a two-dimensional data structure - a table - where each column contains data of the same type. You can see it as a dictionary of Series instances.  DataFrames are great for representing real data: rows correspond to instances (examples, observations, etc.), and columns correspond to features of these instances.  import numpy as np  import pandas as pd  pd.set\_option("display.precision", 2) **Sorting** A DataFrame can be sorted by the value of one of the variables (i.e columns). For example, we can sort by Total day charge (use ascending=False to sort in descending order):  In [11]:  df.sort\_values(by='Total day charge',ascending=False).head() Indexing and retrieving data A DataFrame can be indexed in a few different ways.  To get a single column, you can use a DataFrame['Name'] construction.  In [13]:  df['Churn'].mean() |