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| **Date:** | **18-07-2020** | **Name:** | **Dhanya Shetty** |
| **Course:** | **Coursera** | **USN:** | **4AL17EC026** |
| **Topic:** | **Mathematics for Machine Learning: Linear Algebra** | **Semester & Section:** | **6th A** |
| **Github Repository:** | **Dhanya Shetty\_026** |  |  |

**DAILY ASSESSMENT FORMAT**

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| **FORENOON SESSION DETAILS(9.00am to 1.00pm)** |
| C:\Users\Hp\Desktop\report\18mat11111.PNG  **C:\Users\Hp\Desktop\report\18mat22222.PNG**  **C:\Users\Hp\Desktop\report\18mat33333.PNG**  C:\Users\Hp\Desktop\report\18mat4444.PNG  **Linear algebra** is a sub-field of **mathematics** concerned with vectors, matrices, and **linear** transforms. It is a key foundation to the field of **machine learning**, from notations used to describe the operation of algorithms to the implementation of algorithms in code  Although linear algebra is integral to the field of machine learning, the tight relationship is often left unexplained or explained using abstract concepts such as vector spaces or specific matrix operations.  In this post, you will discover 10 common examples of machine learning that you may be familiar with that use, require and are really best understood using linear algebra.  After reading this post, you will know:   * The use of linear algebra structures when working with data, such as tabular datasets and images. * Linear algebra concepts when working with data preparation, such as one hot encoding and dimensionality reduction. * The ingrained use of linear algebra notation and methods in sub-fields such as deep learning, natural language processing, and recommender systems.   The math includes at least **calculus**, statistics, probability theory. and **linear algebra**. Numerical analysis and something like topology will help if you want to create your own algorithms or tackle deep learning.  **Linear algebra** is absolutely key to understanding the calculus and statistics you **need** in **machine learning**. ... Deeper Intuition: If you can understand **machine learning** methods at the level of vectors and matrices you will improve your intuition for how and when they work  Definition of **linear algebra**. : a branch of mathematics that is concerned with mathematical structures closed under the operations of addition and scalar multiplication and that includes the theory of systems of **linear** equations, matrices, determinants, vector spaces, and **linear** transformations.  **Linear algebra** plays a major role in **Artificial Intelligence** and machine Learning. In various machine learning algorithms like supervised learning and unsupervised learning, to calculate inputs and to train the machines with the characteristics and expected outputs.  **Main point of the Matrix**  The **Matrix** trilogy suggests that everyone has the individual responsibility to make the choice between the real world and an artificial world. Though Neo is the exemplar of free will, fate plays a large role in his adventure. Neo relies on the Oracle, and everything she says comes true in some way.  **Application** of **Matrices**  Almost every branch of physics, including classical mechanics, optics, electromagnetism, quantum mechanics, and quantum electrodynamics, **matrices** are used to study physical phenomena, such as the motion of rigid bodies.  **Matrices** have also come to have important applications in computer graphics, where they have been used to represent rotations and other transformations of images. is a 2 × 3 **matrix**. A **matrix** with n rows and n columns is called a square **matrix** of order n  **Matrices** are classified according to the number of rows and columns, and the specific elements therein. (i) Row **Matrix**: A **matrix** which has exactly one row is called a row **matrix**. The above two **matrices** are row **matrices** because each has only one row.   |  |  |  |  | | --- | --- | --- | --- | | **Date:** | **18-07-2020** | **Name:** | **Dhanya Shetty** | | **Course:** | **Coursera** | **USN:** | **4AL17EC026** | | **Topic:** | **Speak English Professionally: In Person, Online & On the Phone** | **Semester & Section:** | **6th A** | | **Github Repository:** | **Dhanya Shetty\_026** |  |  |   **C:\Users\Hp\Desktop\report\18eng1111.PNG**  **C:\Users\Hp\Desktop\report\18eng2222.PNG**  **sC:\Users\Hp\Desktop\report\18eng33333.PNG**  Definition of **group discussion**. : A **discussion** involving a number of people who are connected by some shared activity, interest, or quality.  **Types of Group Discussion**   * Case study topics. The case study tries to simulate a real-life situation. ... * Controversial Topics. Controversial topics are the ones that are argumentative in nature. ... * Abstract Topics. Abstract topics are about intangible things and often their possibility cannot be ruled out.   Why is a **group discussion** an **important** activity at college level? As a student, it helps you to train yourself to **discuss** and argue about the topic given, it helps you to express your views on serious subjects and in formal situations. It improves your thinking, listening and speaking skills.  **Try to take the initiative**.  Introduce yourself and your team members and then start with the topic but one thing to remember here is that one must initiate the Group Discussion only when he or she is well versed with the topic. Don't take the risk if you **yourself** are not very clear about your thoughts.  Try to emerge as a leader as in, voice your opinion in a striking manner while at the same time listen to others carefully and also include their views in a diligent manner. Leadership quality is a must-have ingredient for **GD**. Be assertive but in a polite manner with expression in voice. Be calm but not quiet.  **The 4 Group Discussion tricks to crack the GD round are:**   * Follow the Group Discussion Rules. * Key Group Discussion skills are - speak logically, be audible, present your idea firmly and be a leader. * Use every opportunity to enter discussion to strengthen your point further. * Read a few model and actual Group Discussion rounds.   **General Interest Group Discussion Topics**   * English must remain the official language of India. ... * Beef ban is illogical. ... * Love marriage vs. ... * Joint family vs. ... * WhatsApp, Facebook, Instagram, and Snapchat are killing creativity. ... * A borderless world is practically impossible. ... * Corruption is a necessary evil.   **8 Tips to Make Professional English Part of Everyday Routine**   * Focus on a profession. “Professional” is a catch-all category. * Set up an RSS feed. RSS stands for “Rich Site Summary,” but it is often called “Really Simple” instead. * Use fluent videos. * Listen to the radio. * Always be listening. * Mix business English with regular English. * Use a social media aggregator. * Go face to face.   The **five** main components of **language** are phonemes, morphemes, lexemes, syntax, and context. Along with grammar, semantics, and pragmatics, these components work together to create meaningful communication among individuals.  **Speak Like a Professional**   * Use short, clear, declarative sentences. Short sentences focus your message and make it easier for your audience to follow. * Speak in the active tense. Own your actions. * Stay calm under pressure. * Speak naturally. * Say what you mean. * Focus on what matters to your audience. * Be specific.   **Grammar** and punctuation **skills** are essential in your classroom writing program. Your students need to be using parts of speech correctly, developing figurative language, extending their use of sentence structure, using punctuation accurately, and further learning how words work. |

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