DAILY ASSESSMENT FORMAT

Date:	15 JULY 2020	Name:	PREETHAM S RAI
Course:	MATHEMATICS FOR MACHINE LEARNING: LINEAR ALGEBRA	USN:	4AL18EC040
Topic:	1. MODULE 2 2. MODULE 3	Semester & Section:	IV SEM & A SECTION
GitHub Repository:	Psraipreetham		

FORENOON SESSION DETAILS
Image of the session
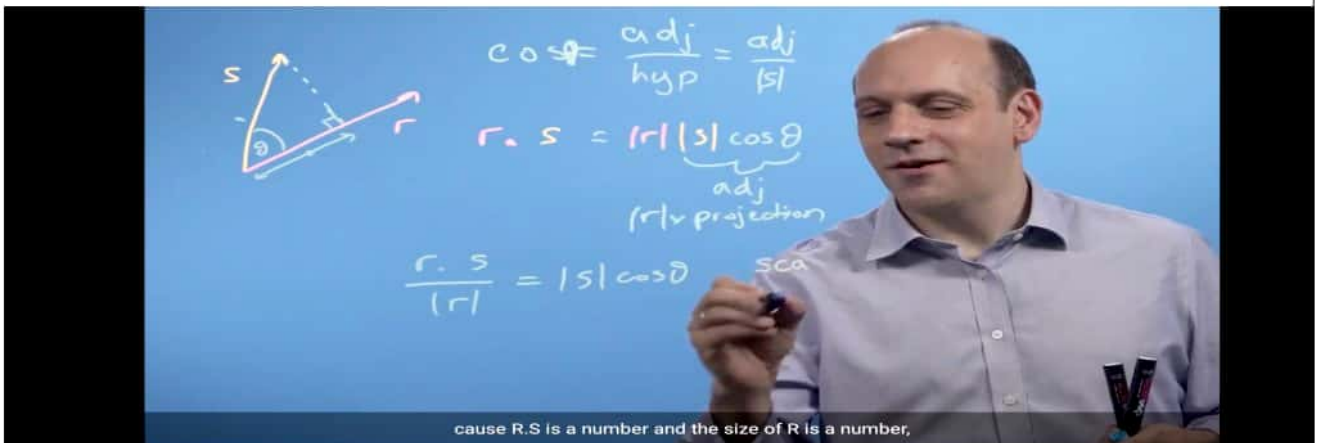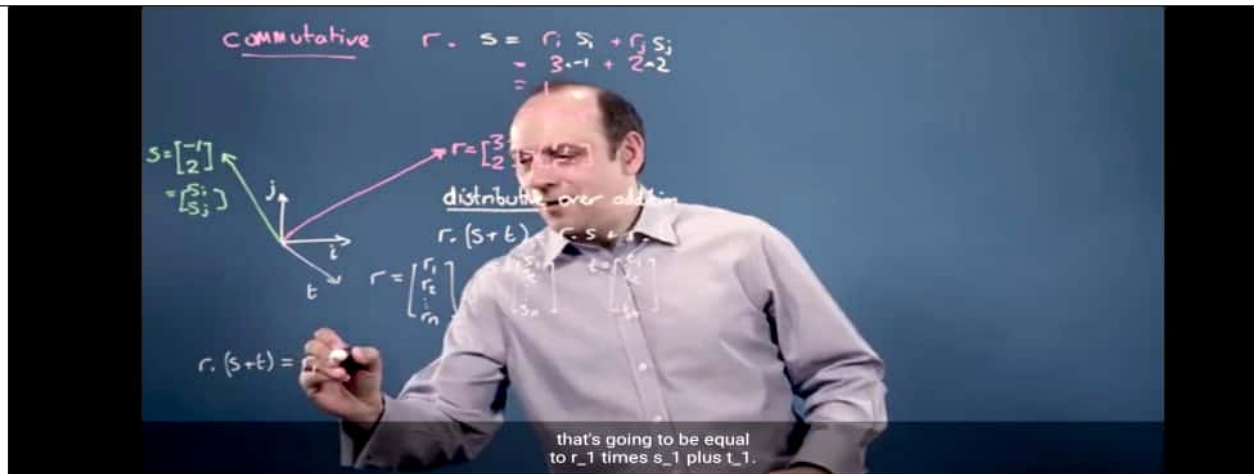
Report – Report can be typed or hand written for up to two pages.

In this module we learnt:

- Introduction to vectors
- Finding the size of a vector, Its angle, and projection

  Modulus and inner product

  Cosine and dot product

  Projection
- Changing the reference frame

  Changing the basis

  Basis, vector space, and linear independence

  Applications of changing basis
- Doing some real-world vectors examples
- Summary

Introduction to matrices

- Matrices in linear algebra: operating on vectors

  How matrices transform space

  Types of matrix transformation

  Composition or combination of matrix transformations

- Matrix inverses

  Gaussian elimination

- Special matrices and coding up some matrix operations

  Determinants and inverses

  Identifying special matrices

- Summary

Date:15 July 2020		Name: PREETHAM S RAI
Course: Salesforce (developer)		USN: 4AL18EC040
Topic: 1. JavaScript Dev I cert prep: Variables, Collections, Classes and Functions API		Semester & Section: IV SEM & A SECTION
AFTERNOON SESSION DETAILS		
Image of session		

Put the Web in Web API

Learning Objectives

After completing this unit, you'll be able to:

- Explain two reasons why web applications are becoming more popular
- State common uses of web APIs.
- Understand the API economy and why API growth has been significant.

Networkable APIs Are Game-Changers

APIs aren't limited to what can be found in the same local network. Developers can also consume APIs offered by remote systems and devices. These can be private connections, like networks found in businesses with multiple locations and data centers, or it can be a public network like the Internet. The keys to this expansive network are the API endpoints.

> **Note**
>
> Think of endpoints like electrical sockets that consuming applications plug into.

The number and types of devices that can be plugged into electrical sockets are limited only by the imaginations of inventors and the capacity of the utility. In the same way, the number of applications that can take advantage of the data abstracted by an API's endpoint is limited only by the imaginations of developers and the capacity of the API providers infrastructure.

Case in point: It wasn't long after Google offered an API for Google Maps that thousands of third-party developers stepped forward with unique and innovative applications that consumed the API, incorporating Google's mapping functionality directly into their apps. Think Yelp, Lyft, Tesla, and any other application that provided a map with the Google copyright in the corner.

It is for this reason that APIs are often referred to as an engine of innovation, especially for Integration Trailblazers who look at the many APIs that are available to them as though they are just Lego-type parts with which to construct new business outcomes and customer experiences.

API Economy

Depending on the volume of calls or some other way of breaking down different tiers of service, a provider like Google might charge the application developer a fee for using the API. This gives rise to the idea of an API economy.

Now, the application developer must weigh all the costs of using the API versus developing the functionality from scratch. Or, as is often the case in the API economy, the developer can seek out a more economical provider for a similar service. Google Maps, for example, has several well-known competitors, including Here.com.

Growth in Web APIs Since 2005

2006 2008 2010 2012 2014 2016 2018 2020

ProgrammableWeb

The API economy's growth is driven by service providers that compete to address this thirst for greater developer productivity and common data. For each of the various types of functionality that can be invoked via API (such as credit card processing, mapping, navigation, and translation), there are often multiple API providers competing for the attention of application developers. In turn, as more features are supplied in the form of API-based services, the API economy is accelerating the trend toward a world of applications that are primarily composed of off-the-shelf APIs. The more composable the final solution is, the more flexible it is to take on new features from other APIs that raise the bar in terms of overall business capability.

API Growth Then and Now

You may be thinking networkable APIs are the greatest thing since sliced bread. You also may be wondering, if they're so great, why didn't the tech industry come up with them earlier? As it turns out, it did.

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TOPICS LEARNT:

Variables

Strings, numbers, and dates

Type coercion

Truthy or falsy evaluations

Data manipulation with arrays

JSON objects

Best function implementation

Fundamentals of object implementation

Fundamentals of class implementation

- Variable scope and the execution flow