CLOUD COMPUTING
Course Overview

Dr. Jannatun Noor
BRAC University
Jannatun.noor@bracu.ac.bd

More about me:
https://sites.google.com/site/jannatun0abigzero/

BRAC UNIVERSITY
Inspiring Excellence

Topics for today

- Introductions and course structure
- Course overview
  - What will you learn?
  - How will I teach you?
- Hands-on activity: Where are you headed?

Introduction

Dr. Jannatun Noor

Research: Cloud Computing, designing, building, and deploying systems for under-served populations in low-income regions

https://sites.google.com/site/jannatun0abigzero/teaching

Course Communication

Google Classroom

Discord Channel: Will share soon! (not sure!)

Use a READABLE and RECOGNIZABLE name please!

Lectures

No one wants to listen to me talk for over an hour….

First 5~10 min of class will be short questions on the assigned reading **(5~10% marks for sincerity)**
Next 30-35 min will be lecture
Last 30-35 min will be in-class-activity

In-Class Device Policy

I only allow device usage during activities that require devices. At all other times, you must put your devices away.

Independent research and student feedback clearly shows that using devices on non-class related activities not only harms your own learning, but other students' learning as well!

I will teach better, you will learn better.

Violation of the in-class device policy will result in you losing that day's poll and in-class activity credit!

Tentative Mark Distribution (subject to change if necessary)

Section	Marks (%)
Quizzes/Class Tests/Assignments/Projects/Lab	50% - 60%
Mid Term Examination	10 %
Others	20 -30%
Final	10 %
Total	100 %

Assignments & Projects !!! 50~60 marks

- **Submit the assignments at due time.**
- **No assignment will be allowed after the deadline. [Strictly]**
- Never ignore assignments. That will lower your grade.

Course feedback

I like feedback

Help me make the class better

Example: hey Jannat, I hate your in-class device policy. It forces me to pay attention in class.

If you don't tell me, I don't know :)

Books and Resources

- No need to follow any exact book.
- For gaining knowledge you can follow any book related to Cloud Computing.
- Will cover topic based on practical requirements on recent industries demand
- Mainly focus on DEV-OPS Concept [Development and operation]

Books and Resources

- **Cloud Computing Theory And Practice by Dan C.. Marinescu.**
- **Cloud Computing: from beginning to end by Ray J. Rafals**

Be ready to work with LINUX operating system

- **Don't be afraid, learning a new operating system is always fun**
- **You must need to setup Linux operating system in your PC.**
- You can also install VMware/virtualBox, and inside the software install a Ubuntu virtual machine.
    - That will need a two level virtualization to complete the assignments.

What will you learn?

You will learn and practice fundamental **Cloud Computing** tools and techniques

Condensed and accelerated versions of core concepts

We will focus on **Cloud "practice"** – learn practical tools and techniques that you can use in your own projects/jobs

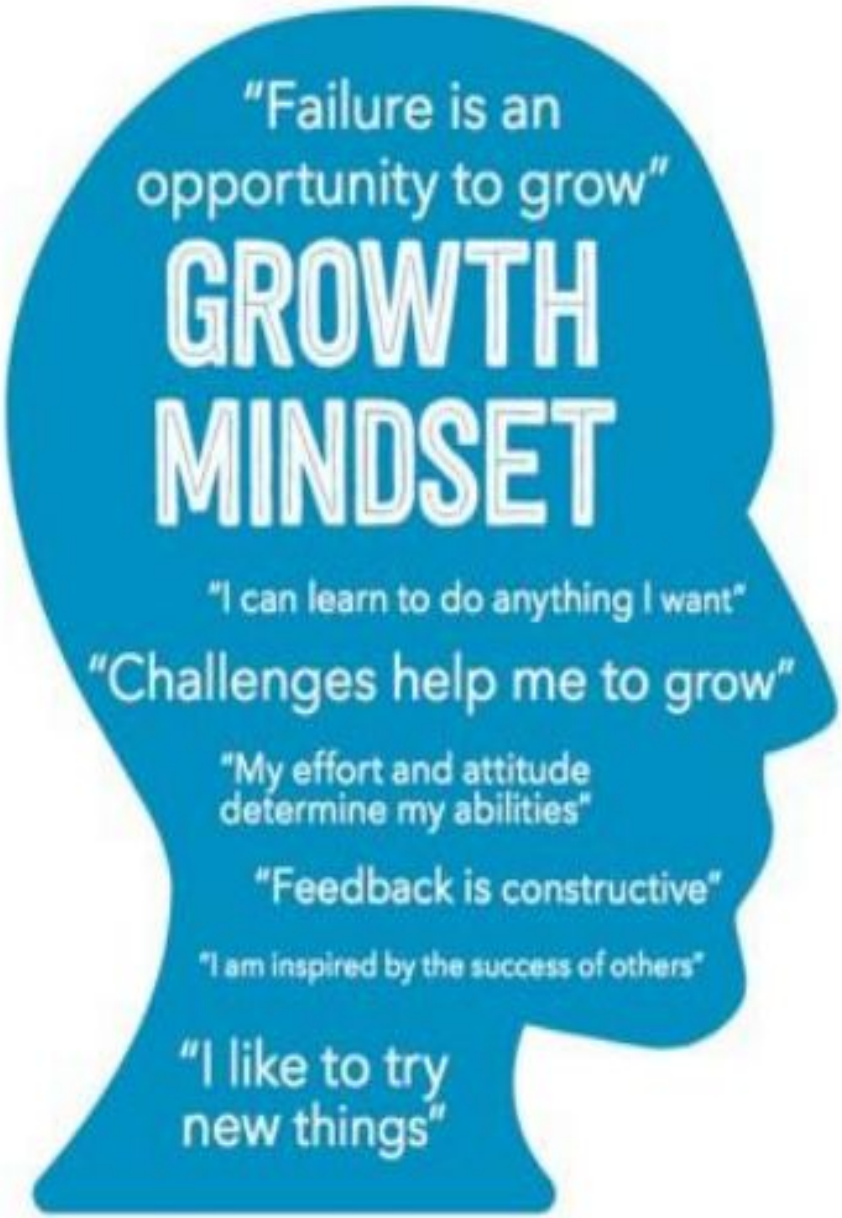
You will get **hands-on practice** applying and using those tools and techniques – both in-class and through assignments

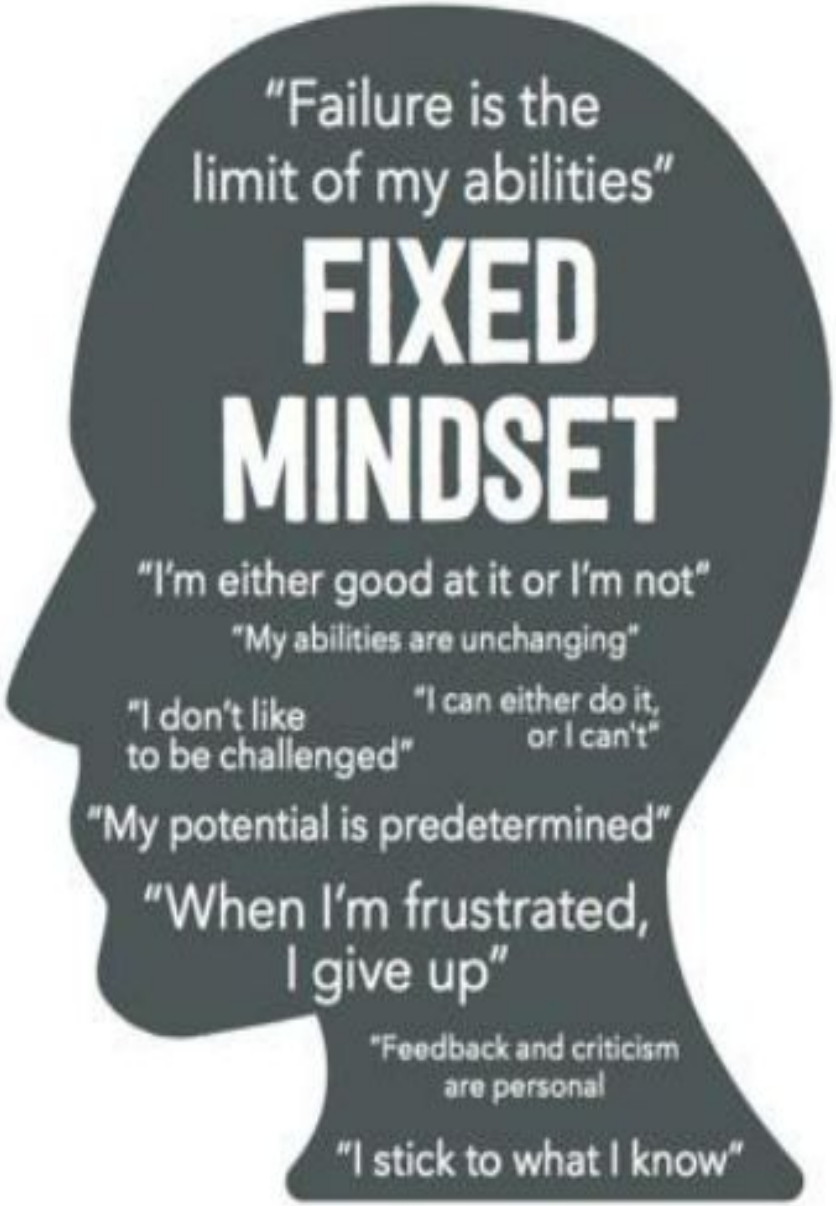
How will you learn?

But I'm really bad at Linux... But I can't run commands ...

But I don't know how to code... But I only know how to code....

In this class (and in your life) I want you to consciously try to have a Growth Mindset **(Carol Dweck)**

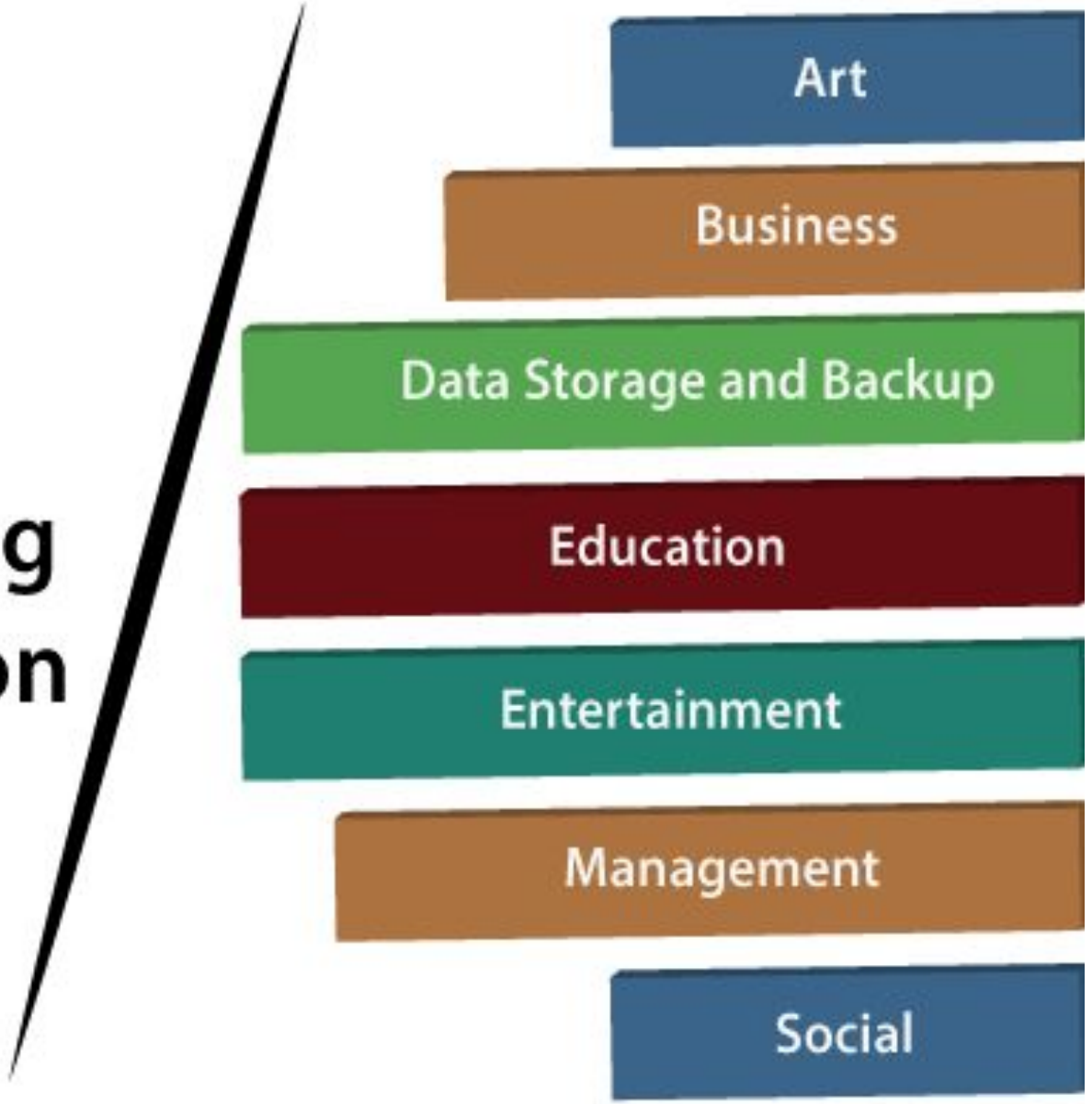




Topics to cover

No.	Topic details	Time allocation
1	Cloud computing basic; Virtualization in cloud	Week 1,2
2	Containerization; Storage systems - File storage, Block Storage, Object Storage	Week 3,4
3	Message Broker - RabbitMQ/ ZeroMQ/Qpid; Cache - Memcached/Redis	Week 5
4	Review and midterm	Week 6
5	SDS, Object storage system OpenStack Swift installation	Week 7-9
6	RDBMS - MySql, MariaDB, Postgresql; Components of a cloud	Week 10
7	Software defined networking; Openstack PackStack installation	Week 11
8	Course Review/Discussion	Week 12

Cloud Computing Application



Questions? Concerns?

Homework

Reading: will be Posted on Classroom website