**Why IS BLOCKCHAIN**

**(LECTURE1)**

**WHAT IS BLOCKCHAIN**?

**Blockchain** is the **distributed public ledger** which is immutable. You can view or add transaction but cant **update or delete** the transaction. That means data can’t be **tempered.**

It uses **Cryptography** to secure **Transaction** and **block**

**Shaking The System**

**Industries that can be disrupt by Blockchain Technology**

**1**.Banking and Payments

**2**.Supply Chain Management(retailer product example i.e. production date,authentic,expiry date and price etc.)

**3**.School Records.

Rich applications like Facebook ,YouTube, Amazon and etc are all centralized application and also called Walled Gardens(because all the data related to users are stocked at one place).

5.0 **WEB 3.0**

Lets discuss about web 1.0 and web 2.0

**Web 1.0** was just a set of static websites with a load of information and no interactive content

**Web 2.0** comes with a lot more features along with rich applications like facebook,gmail,youtbe in which user can interact and can share its info to others.

These application records all the activity of user and when user search the new things they use the record information for advertisement and show the related search advertise.

**Web3.0**

Now the era of web 3.0 start. The application will be decentralize and the information will be in user’s hand and there will be no central authority.

**6.0 Problem with Traditional System**

**1**.Centralized

2.Middleman

3.Mutable

4. Transparency

5.Trust issue

7.0 **BITCOIN**

**David Chum** was the first person who give the idea of digital currency or e-cash in 1982.

Then David made a company named as Digicash.

It uses cryptography to secure transactions.

He faced some problems like in traditional banking system i.e central authority to control it so that’s why it was bankrupted in 1998.

Bitcoin Properties:

**1.decentralized**(peer-to-peer distributed ledger)

**2.Imutability**

**3.Fungible**(i.e. bitcoin can be exchange one bitcoin is exactly equal to other one bitcoin there is no particular value type of it but have an equal value)

**4.Permissionless** (It does not need any permission to participate in it just download the software and become the part of it)

**5.Divisble** it can be send like (0.00000001) up to 8 decimal numbers. And that number is **1 Stoshi** (like 1 paisa)

**6.Sacrcity** (It is important for any currency that’s its supply is limited)

And the supply of bitcoin is limited to **21 million coins**

Every 10 minutes a new block is added in blockchain and for 1 block 12.5 bitcoin is generated and as a routine after every 4 years bitcoin generation becomes half.

And in 2140 years it will be completely generated i.e. 21 million and no further

Bitcoin will be generated and then it works like a normal currency which will be exchange by the participants in transactions and miners will get the transaction fee for every transaction.

**7.Transfeable**

Bitcoin is easily transfer because there is no central authority which becomes hurdle for its transformation.