ASSIGNMENT – 1

What is BitCoin?

Bitcoin (BTC) is a cryptocurrency, a virtual currency designed to act as money and a form of payment outside the control of any one person, group, or entity, thus removing the need for third-party involvement in financial transactions. It is rewarded to blockchain miners for verifying transactions and can be purchased on several exchanges.

Bitcoin was introduced to the public in 2009 by an anonymous developer or group of developers using the name Satoshi Nakamoto.1

It has since become the most well-known cryptocurrency in the world. Its popularity has inspired the development of many other cryptocurrencies. These competitors either attempt to replace it as a payment system or are used as utility or security tokens in other blockchains and emerging financial technologies.

What is BitCoin mining?

Bitcoin mining is the process of validating the information in a blockchain block by generating a cryptographic solution that matches specific criteria. When a correct solution is reached, a reward in the form of bitcoin and fees for the work done is given to the miner(s) who reached the solution first.

Over time, the reward for mining Bitcoin is reduced. This reward process continues until there are 21 million bitcoin circulating. Once that number is reached, the bitcoin reward is expected to cease, and Bitcoin miners will be rewarded through fees paid for the work done.
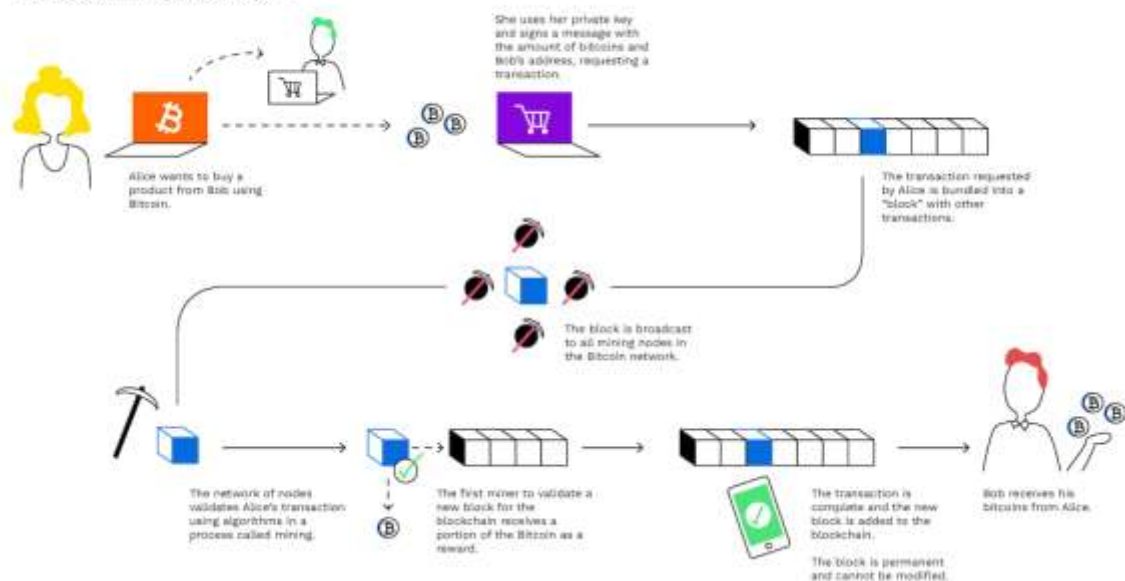
How Does Bitcoin Mining Work?

Here's a simplified example to explain the process. Say you ask friends to guess a number between 1 and 100. Your friends don't have to guess the exact number; they just have to be the first to guess a number less than or equal to your number. If you think of the number 19 and a friend comes up with 21, another 55, and yet another 83, they lose because they all guessed more than 19. But if you have three friends left, and the next one guesses 16, they win, and the others don't get a chance to guess. The one who guessed 16 was the first to guess a number less than or equal to 19.

ETHEREUM :

Ethereum is decentralized blockchain with smartcontract functionality. Ether is native cryptocurrency of the platform. Among cryptocurrencies, ether is second only to bitcoin in market capitalization. It is open-source software.

Ethereum was conceived in 2013 by programmer Vitalik Buterin Additional founders of Ethereum included Gavin Wood, Charles Hoskinson, Anthony Di Iorio and Joseph Lubin In 2014, development work began and was crowdfunded, and the network went live on 30 July 2015. Ethereum allows anyone to deploy permanent and immutable decentralized applications onto it, with which users can interact. Decentralized finance (DeFi) applications provide financial instruments which do not directly rely on financial intermediaries like brokerages, exchanges, or banks. This facilitates borrowing against cryptocurrency holdings or lending them out for interest. Ethereum also allows users to create and exchange non-fungible tokens (NFTs), which are tokens that can be tied to unique digital assets, such as images. Additionally, many other cryptocurrencies utilize the ERC-20 token standard on top of the Ethereum blockchain and have utilized the platform for initial coin offerings.