Lets talk about Ethereum in this lecture, which is a cryptocurrency discussed almost all the time. It has been the pioneer for many ICOs that have come as of recent times.

So to begin with, a question many people will want answering is the following, what exactly is Ethereum? This is especially true of the matter if you’ve just come across the term. So what we’re going to be doing in this episode is just that, breaking down Ethereum, so you understand it as its core. Lets dive into it all!

Now at the most level high level basic point, Ethereum is an open source software platform based upon blockchain technology. What that then empowers others to do is build and deploy decentralised applications upon it. I’ll get into some of the applications that can be built upon it later in this lecture, but as mentioned, at a high level basic point, that’s what Ethereum is.

Naturally will now come the question, especially if you’re looking at this as an investment, how similar is Ethereum to Bitcoin. Well let me explain - as many still don’t understand the key difference between the two, other than they can be traded on exchanges.

So both have very different technological approaches when it comes to how they utilise there respective distributed public blockchain networks.

Lets start with bitcoin. So bitcoin offers one key role with the use of its blockchain technology, if you’ve been through my bitcoin related courses you’ll be aware of this, and it’s peer to peer payments using bitcoin. Often within ten minutes, and with minimal transaction fees attached. However, as of 2017 the network is having scaling issues hence it’s generally taking longer, and consequently costing more. But still cheap in the grand scheme of things. Just so you’re aware there are two parties with bitcoin, one that consider it a store of value - like a digital gold, and others that see it as a day to day currency, replacing your fiat currency.

Now with Ethereum, this is inherently different in its approach. The Ethereum blockchain focuses on running the programming code of any decentralised application. On top of that, it has its own cryptocurrency, Ether, which is used to fuel the network of transactions that get processed. Of course, you can still trade the cryptocurrency, but the main purpose for its creation was so that decentralised blockchain app developers could pay for transaction fees and services on the Ethereum network.

This leads me nicely onto my next point, what exactly can Ethereum be used for. Well as mentioned, Ethereum focuses on running the programming code of any decentralised application - it helps developers deploy there decentralised applications. So just think of all the ‘middle-men’ you have to go through when generally going through a services process, developers, with the help of Ethereum, can remove all that, and decentralise, centralised services which aren’t controlled by any single entity.

You might ask what the benefit of that, and in general the Ethereum platform is, well let me go over four key advantages with you - here goes:

So one, it’s secure. Don’t worry I’m not going to leave it there, I am expanding on this. So as mentioned it’s secure, but how? Well, decentralised applications built upon Ethereum have no central point of failure, which makes it almost impossible for hackers to corrupt.

The next advantage is, immutability. So due to the way the DApps, which is short for Decentralised Applications are created, a third party can’t just come in and make any changes they wish. It’s all programmed in, hence changes can’t be made by third parties.

Next up, it’s corruption proof. So all the decentralised applications built upon Ethereum as based around the distinct fact that they follow principles of a consensus - hence as mentioned, making it virtually impossible to corrupt.

Then finally, Ethereum based decentralised applications come with zero down time. It’s important to know this, that these applications can’t just go down. It’s a 24/7, 365 network. So definitely a key selling point when it comes to this ecosystem.

But remember this point now, so I did mention that Ethereum is super secure and so on. But, there is a downside, well it’s more human error than anything, so if lets say a decentralised application or smart contract built upon Ethereum has huge flaws in its code, this is where someone with not so good intentions can exploit it. Then the only way to stop that exploitation is to re-write the underlying code! So yeah, human error, that is a downside here. But that’s the reason why it’s open source and created the way it is, you can read the code and make sure everything looks good from your end before maybe pledging funds.

Now just to end on this lecture, let me touch on some Ethereum decentralised applications you can actually go and checkout right now. So the most popular by far in my personal opinion, well anyway the one that many would have seen if they’ve been looking at the market capitalisation of cryptocurrencies is - Augur.

So basically Augur is an open source predictions and forecasting market, where anyway can forecast events, and if correct, get rewarded with Augur - which is the name of there cryptocurrency as well. It’s a real neat idea! So you could predict like who’s going to win the next world cup, who’s going to be the next formula one world champion, the next president of the united states, and so much more. It’s a real interesting concept.

But that’s just one big project built upon Ethereum, there are a whole host of others. If you want to check out other projects that are being built upon this amazing technology, checkout this link here - it’s a great insight into just how widespread the use is coming. So the link is: http://dapps.ethercasts.com. Hope you gained a ton of value out of this lecture, see you in the next where we will be discussing Ripple.