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Naledi
Learning
Centre

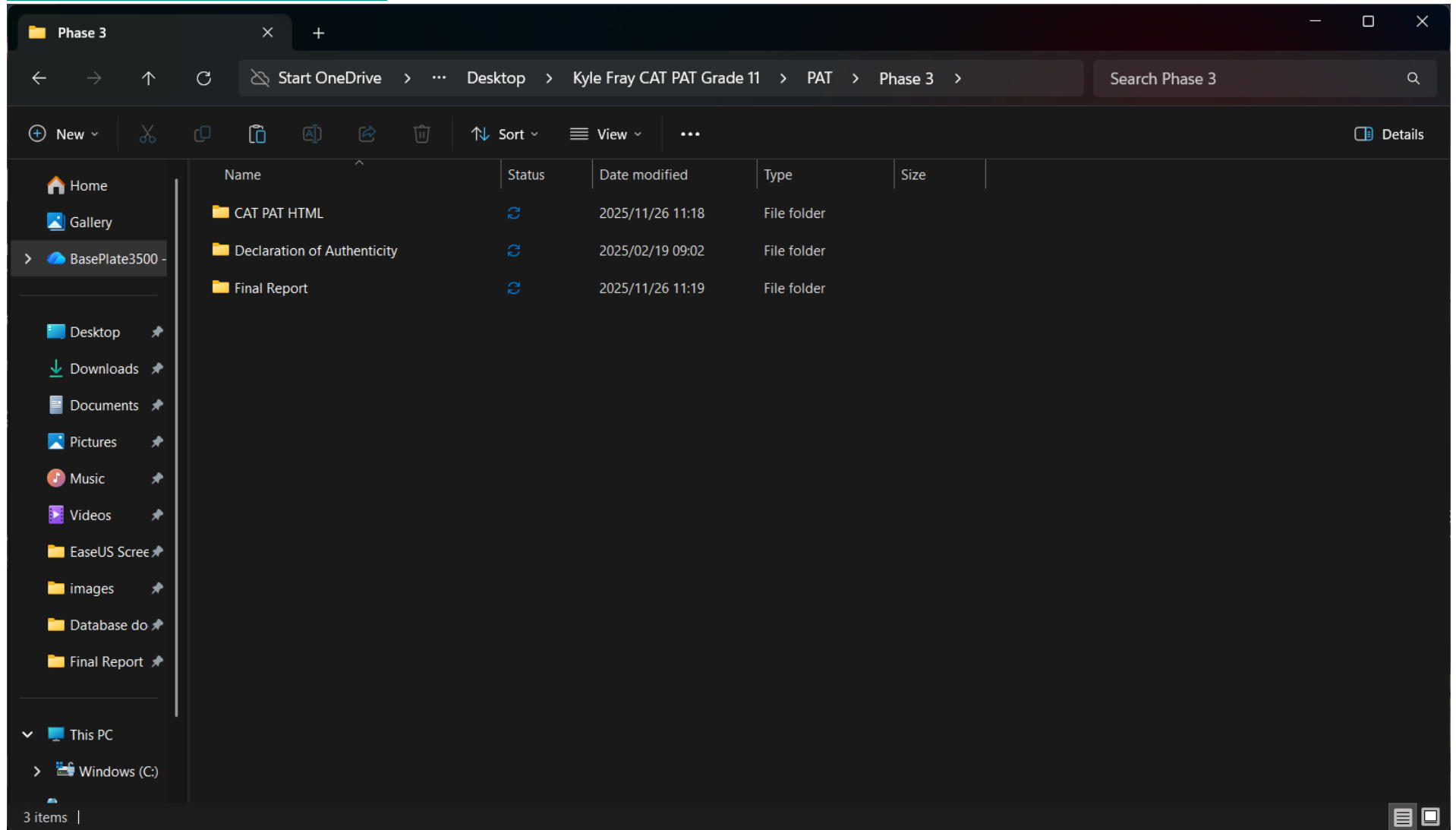
CAT: The use
of
cryptocurrency

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File path and authenticity

Addendum A: Folder Structure



Addendum B: Declaration of Authenticity

ADDENDUM A: Learner declaration – Phase 3

I understand that work submitted for assessment must be my own.

Did you receive help/information from anyone to complete this work/project?

No Yes (provide details below)

Help/information received from (person):	Nature of the help/information (provide evidence):

I hereby declare that the content of this assessment task is my own original work (except where there is clear acknowledgement and appropriate reference to the work of others) and that I have not plagiarised, copied from someone else or used work previously submitted for assessment by anyone else.

Kyle Fray Date: 26 / 11 / 2025
Signature of learner

Note

A Declaration of Authenticity (Addendum A) must be completed and submitted with each Phase of the PAT, i.e. one for Phase 1, one for Phase 2, and a **Final Declaration (Addendum B)** for Phase 3.

ADDENDUM B: Declaration of Authenticity

Learner name	<u>Kyle Fray</u>	ID number	<u>081124532080</u>
Grade	<u>11</u>	Year	<u>2025</u>
Subject	<u>Computer Applications Technology</u>		
Practical Assessment Task (PAT)	Facilitator	<u>JF HARTZBERG</u>	
I hereby declare that the content of this assessment task is my own original work (except where there is clear acknowledgement and appropriate reference to the work of others) and has not been plagiarised, copied from someone else or previously submitted for assessment by anyone else.			
<u>Kyle Fray</u>		Date: <u>26</u> / <u>11</u> / 2025	
Signature of learner			

Introduction and summary on the task.

Introduction:

Cryptocurrency is a digital currency that does not require a central bank to make a transaction, this decentralizes central authority that the banks have over funds and allows the system to work with more than a single entity and a separate blockchain.

Task Definition:

Why is this investigation being done?

- The investigation of cryptocurrency is being conducted so that people can get a more in-depth analysis into what crypto is, if crypto is secure and if crypto is viable in South Africa.

What is the focus of my investigation?

- The focus of the investigation will be on how crypto decentralizes a system built on centralization.
 - ⇒ Comparing crypto's blockchain and the security of a normal bank.
 - ⇒ How each system is run internally to stay working.
 - ⇒ If there is an option that is better than the other.
- This investigation will also compare normal banks' security measures with crypto wallets.
 - ⇒ What measures do each of the systems follow and how resilient they are to attacks.
 - ⇒ How you can prevent theft and foresee future events.
 - ⇒ What is the better security system overall.
- I will also research on if cryptocurrency is viable in South Africa.
 - ⇒ Comparing South Africa with first world countries like America.
 - ⇒ Comparing the impact and cost of both mining and trading crypto.
 - ⇒ Concluding whether you should still invest into crypto or not.

How will I go about conducting the investigation?

- I will research the main points concerning crypto and banking in South Africa and compare it to other countries that are more advanced. Then I will gather information from other people via a survey.

Who is the target audience of this investigation?

- The aimed audience is for all people that want to learn more about crypto and why it is different to normal banking and why it is sustainable and fully functional even after a long span of time.

How will I present my findings?

- After gathering the necessary info I will export the data into a spreadsheet to get graphed data and present my findings on an HTML website.

Questions Guiding the investigation:

Cryptocurrency and the shift from centralization to decentralization

- 1) What are the differences between how normal banks and crypto manage and store transaction data?
- 2) How does cryptos blockchain decentralizes control compared to the blockchain of normal banks?
- 3) Would the global economy be more stable if more centralized facilities decided to decentralize?

Bank security and crypto wallets

- 4) What security measures do banks take in comparison to crypto wallets?
- 5) How do users affect the approach of keeping these systems secure and proactive when it comes to theft?
- 6) What if all banks switched to a blockchain based security system?

The Viability of crypto in South Africa

- 7) What is the average return rate of crypto when investing in South Africa?
- 8) Why is crypto more profitable to mine and trade in first-world countries in comparison to South Africa?
- 9) What if South Africa's economy continues to decline, will crypto be a way out?
- 10) Would it be more profitable to focus on trading only?

Addendum C: Questions and sources table

NO.	Category	Questions	Level of questions
1)	Centralization to decentralization.	Questions will be around blockchain, the economy and differences of crypto wallets and normal banks.	Level 1, 2 and 4 questions were used under this heading.
2)	Security.	Questions brush over the measures crypto and normal banks take to stay secure, how to stay ahead of theft and the possibility of all banks using a decentralizing system.	Level 1,2 and 3 questions were used under this heading.
3)	Viability.	This section focuses on the viability of crypto in South Africa and asking questions like the average return rate, if trading or mining is worth it, about the economy and profit.	Level 1, 2, 3 and 4 questions were used under this heading.

Identifying sources:

Website Source 1	
Authors/Organisation/Publisher	OneSafe Content Team
Name of website and web page	OneSafe
Date created/Updated	The Centralization Trap: How Crypto Banking Services Undermine Decentralization
Date accessed	12 April 2025
URL	https://www.onesafe.io/blog/centralization-paradox-crypto-banking-solutions
Summary	The website explains how some crypto banking services, like centralized exchanges and crypto wallets are starting to go against crypto's original goal of decentralization. These services make crypto more user-friendly, but they also give too much control to a few companies, which can create risks for users. The article calls this the "centralization trap" and concludes that the future of crypto should be a mix of decentralization and ease of use.

Website Source 2	
Authors/Organisation/Publisher	Investopedia Staff
Name of website and web page	Investopedia
Date created/Updated	15 April 2025
Date accessed	15 April 2025
URL	https://www.investopedia.com/terms/b/bitcoin-wallet.asp
Summary	This website explains what crypto wallets are and how they work. This website also talks about hot wallets (online) and cold wallets (offline) and the pros and cons of each while putting a big importance over security.

Other Sources	
Authors	Not Specified
Title of source	The legal classification of cryptocurrency in South African law.
Date published/issued	2017
Publisher	University of Cape Town
Summary	This academic study explains how cryptocurrency is seen under South African law and looks at the legal challenges associated with crypto.

Validation and credibility of sources:

Website source 1

Criteria	Motivation
Authority	Made by the Onesafe content team, with Chris Shei the co-founder and the CEO of OneSafe. OneSafe is a fintech company that focuses on crypto banking solutions.
Currency	Published on April 15, 2025, and is very recent.
Accuracy	The website speaks about centralization with decentralized funds, closely linking with other statistics from other trend analysis reports with cryptocurrencies like Ethereum and Bitcoin.
Objectively	There could be a bit of bias since this company offers crypto banking services but remains mostly neutral and true to data.
Coverage	The website gives an in-depth view about the issues of centralization in crypto banking along with major exchanges, mining concentration and the decentralized ethos of blockchain.

Website source 2

Criteria	Motivation
Authority	This website was made by Investopedia a platform which is very respected and known for reliable information.
Currency	The date is not given on the source on when it got published or when updated but Investopedia always updates their sources with the latest information.
Accuracy	The website explains crypto wallets, how they function, the different types and security in detail while backing their own information up with other well trusted publishers.
Objectively	The information is showcased neutrally without marketing services
Coverage	The website covers everything you need to know about crypto wallets including hot and cold wallets, what they do and how they are secured.

Other sources

Criteria	Motivation
Authority	This article was made by the University of Cape Town so it should be credible.
Currency	The article was made in 2017, which is outdated but is still helpful for a basic understanding.
Accuracy	High accuracy with matching studies of other sources.
Objectively	The article is straightforward and academically focused.
Coverage	This article gives the reader an in-depth legal view, even if the information is narrow and outdated its still detailed.

Final Reflection:

What is Bitcoin?

Bitcoin is a form of cryptocurrency that does not rely on a central bank or entity to process transactions. It operates on a decentralized network that removes the control that traditional banks have over money worldwide. Each transaction is recorded on a blockchain, which increases transparency and reduces the risk of tampering or manipulation.

By eliminating a single controlling authority Bitcoin allows people to send and receive money directly without needing a middleman. Decentralization provides greater independence, it also means users are fully responsible for their own security. As a result, understanding how Bitcoin and blockchain technology work is essential before becoming involved.

Centralization vs Decentralization

Centralization refers to systems controlled by a single authority, such as a bank or government. These systems provide structure, regulation, and consumer protection, but they also concentrate power in one place.

Decentralization, used in cryptocurrencies, spreads control across a network of users through blockchain. This allows for greater transparency and independence, but it also removes the safety net provided by institutions.

The data collected shows that most people are unsure whether decentralization is better. While some appreciate its freedom, the majority still trust centralized systems because they feel more familiar and secure.

Crypto in South Africa

In South Africa, cryptocurrency is seen as a promising but difficult opportunity. High costs and limited infrastructure make mining less realistic for the average person. However, trading and investing are seen as more accessible and profitable.

Although South Africa is behind many first-world countries in crypto adoption, interest continues to grow. This suggests that while challenges exist, cryptocurrency may still play an important role in the country's financial future.

Research Summary

This task explored how cryptocurrency is reshaping traditional finance, focusing on three key areas of crypto being how it brings over the shift from centralization to decentralization, the differences in security between banks and blockchains, and the possible success of crypto in South Africa.

The results of the questioner showed that digital finance is growing rapidly but many people do not fully understand it. Most participants were aware of basic security practices such as strong passwords and multi-factor authentication, but many admitted that they do not follow these practices consistently. This gap between knowledge and action increases the risk of fraud and data loss.

When asked about decentralization many participants were unsure whether it would make the global economy more stable. While some recognised the potential for transparency and independence, others were concerned about the lack of regulation and personal responsibility. This uncertainty suggests that decentralized systems are still not fully trusted or understood by the public.

In comparing traditional banks and blockchains, most respondents viewed banks as safer. This is because banks offer customer support, fraud detection, and protection if money is stolen. They found crypto much less convenient because it requires users to protect their own private keys. Losing a key often means losing access to funds permanently. This makes crypto empowering but also more dangerous for those who are not careful.

The research also examined the situation in South Africa. Compared to countries like the United States, South Africa faces major challenges such as high electricity costs, limited infrastructure, and inconsistent regulation. These factors make crypto mining less practical. Although many people believe that crypto trading and investing still offer promising opportunities, especially for those looking for financial independence outside traditional banking systems.

Conclusion

The research shows that digital finance is shaped not only by technology, but by human behaviour. While cryptocurrency offers innovation and independence, it also requires responsibility and knowledge. Many people still rely on traditional banks because they feel safer and more supported. However decentralized systems may become a stronger part of the global economy. Knowledge, accountability and smart decision-making will be essential in creating a secure and balanced financial future.