Blockchain Academy International – BLKEBF001
Unit 1 - Activity 2 - Practical Skills Task

Student Name	
Date	
Version Number	
Unit	BLKEBF001 – Establish a Blockchain framework for decentralised peer to peer consensus innovation

OVERVIEW

- There are two parts to this assessment activity. Part A and Part B
- Both Parts A & B are to be completed in full PRIOR to being submitted for marking.
- To demonstrate your competence in applying key concepts of this unit, you are to support your submissions with examples from a blockchain ecosystem that you will research.
- Once each part is completed, it is to be submitted for marking through this Student Portal

BACKGROUND

Consider the organisation that you are working in, or research a blockchain ecosystem and project that you are familiar with. If you are currently working on a blockchain project you may use that.

You are required to review their blockchain implementation for all or part of their client facing systems. Identify the 'application idea' that delivers value to the customer.

Blockchain Project / Use Case
Summarise the project **application idea** and the **flow of value** to the customer (user).

Part A – Establish a blockchain framework

INSTRUCTIONS FOR PART A:

You are to demonstrate how you will work with a blockchain team and any other relevant stakeholders to establish a blockchain framework.

Your framework must address the following perspectives:

a. Technical
b. Business and
c. Legal perspectives.

When considering each of these perspectives you must demonstrate that your blockchain framework can meet the organisational needs. The following tasks would be addressed as you lead a team and consult with various stakeholders to ensure relevant data has been used for the project plan:

1. **Analyse the functional and non-functional aspects** of the current or proposed systems to determine any limitations for application. Consult with the team **using Drescher's Model** of layers and aspects.
2. **Gather information from your team or a wide range of personnel in the organisation** regarding any current client facing systems.
3. **Determine the system integrity requirements** through consultation with stakeholders.
4. **Develop a blockchain framework** that includes:

    a. A summary of the purpose of your selected Use Case

    b. A framework presented in layers (use the Blockchain Technology Stack as a guide) that captures the architecture that you will adopt to facilitate your use case. At a minimum you must address:

        - Platform Consensus protocol/s
        - Access control
        - Operations of applications, interoperability, and enablement of policies
        - User interface and application interaction
        - An analysis of potential computational power issues with operating a decentralised network. The analysis must include inputs from network operators.
        - The three perspectives considered above:
            - Technical Perspective
            - Business Perspective
            - Legal Perspective

PART A DELIVERABLES:

You are required to:

1. **Describe the Blockchain Framework** that you have established through points 1-5 above.
2. **Present your framework in a matrix** that reflects the layers (stack) of your blockchain network.
3. **Evidence of consultations** with and leading the team. Evidence can be in the form of Meeting Agendas and minutes, email correspondence or executed and verified project plans.
    - You should note the roles of those involved in correspondence or included in meetings The topic of any correspondence should be clearly noted in the correspondence.
    - All meetings must have an agenda and corresponding minutes.
    - Minutes are to be noted and signed by all participants.

Analysis of Layers and Aspects (Drescher's model)

Analyse the functional and non-functional aspects of your current or proposed systems to determine any limitations for application:

APPLICATION LAYER (User Needs)		
Application	**Functional Aspects**	**Non-Functional Aspects**
[add delete rows as required]		
IMPLEMENTATION LAYER (How you will implement the user Needs)		
Implementation	**Functional Aspects**	**Non-Functional Aspects**

Computational Power Issues

An analysis of any potential computational power issues with operating a decentralised network
[delete red text when complete - firstly identify whether this is relevant to the protocol for your use case]

Blockchain Framework (Blockchain Tech Stack)

[Delete red text when completing - this is a suggested tech stack matrix - you may choose to present your stack and headings somewhat differently as appropriate for your use case]

PURPOSE	[Delete red text when completing - describe the purpose of your blockchain framework]
USER INTERFACE LAYER Acts as the User Interface where customers (users) interact with the blockchain.	• [Delete red text when completing - add your bullet points here]
SERVICES / APPLICATION LAYER Where applications are made visible eg; Smart contracts, wallets, APIs etc…	
NETWORK AND PROTOCOL LAYER Where nodes participate and apply the consensus protocol.	
INFRASTRUCTURE LAYER Essential network infrastructure eg: computers, storage, platform etc…	

Evidence of Consultations with Key Stakeholders

Learners must provide evidence of leading consultations with blockchain team members or external consultants.

Delete this red text before submitting for grading:
Copy and paste copies of meeting minutes, agenda, emails, etc below.
See the purpose of consultation with your project team on page 35 of your Learner Guide.
Unless you are working on an actual project, these records of consultation **may be simulated** (e.g. with your fellow students and/or trainer playing the role).

Please indicate roles of those involved in the correspondence or meetings used as evidence		
Name	**Position**	**Role in project**

Part B – Analyse the roles of intermediaries

To assist in understanding the implications on long standing relationships with a range of intermediaries, you are to prepare an **Intermediary Evaluation Matrix** for review.

INSTRUCTIONS FOR PART B:

Prepare an **Intermediary Evaluation Matrix** that cover intermediaries filtered by Technical, Business and Legal filters.

In developing the Intermediary Evaluation Matrix you must demonstrate your approach to this task where you will:

1. Consult with your team and relevant stakeholders to identify intermediaries and their relevance within the blockchain ecosystem.
2. Lead the team to identify opportunities for disintermediation using blockchain.

PART B DELIVERABLES:

You are required to:

1. **Prepare an Intermediary Evaluation Matrix.** In determining the intermediaries, you should apply Technical, Legal and Business filters.

2. Evidence of consultations with and leading the team
   - This can be in the form of Meeting Agendas and minutes, email correspondence or executed and verified project plans.
   - You should note the roles of those involved in correspondence, or included in meetings
   - The topic of any correspondence should be clearly noted in the correspondence
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Identify Intermediary Roles

Intermediary Analysis		
Role / Function (performed by a third party)	**Type of intermediary (type of intermediary)**	**Non-valid roles / functions**

Identify Opportunities for Disintermediation

Summary of opportunities for disintermediation using blockchain (what can actually be automated. Be specific here):

Delete all red text and change to black before you submit this work for grading:

Intermediary Evaluation Matrix		
Technical Perspectives	**Business Perspectives**	**Legal Perspectives**
[Data and information required to initiate, process, complete and record transactions.]	[Key Activities and Key Resources required to successfully complete the transaction. Typically identified in the Business Model]	[Identify regulatory bodies to be considered in effecting the transaction]
[Location of data and information.]	[Valid roles of intermediaries and how value and assets will be exchanged]	[How the transactions are being validated]
[Identify appropriate interoperability required to access and update data.]	[How trust is created and maintained throughout the transaction, through consensus]	[Any records that you need to maintain for regulatory and legal purposes]
[Identify how data is secured and made available to those authorised to access and use it, and to stakeholders.]	[Contingency planning]	

Evidence of Consultations

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