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Qualification	Level 5 Diploma in Computing / Level 5 Diploma in Computing (with Data Science)

Unit ID	1008
Assessment	Agile Development
Assessment Type	Global Assignment
Cycle	Spring 2024 – Winter 2025

Assignment title: GeekUP – Valuation Mobile App

Important notes

- Please refer to the *Assignment Presentation Requirements* for advice on how to set out your assignment. These can be found on the NCC Education website. Hover over 'About Us' on the main menu and then navigate to 'Policies and Procedures' then scroll to the 'Student Support' area.
- You **must** read the NCC Education document *Academic Misconduct Policy* and ensure that you acknowledge all the sources that you use in your work. These documents are available on the NCC Education website. Hover over 'About Us' on the main menu and then navigate to 'Policies and Procedures' then scroll to the 'Student Support' area.
- You **must** complete the *Statement and Confirmation of Own Work*. The form is available on the NCC Education website. Hover over 'About Us' on the main menu and then navigate to 'Policies and Procedures' then scroll to the 'Student Support' area.
- **Please make a note of the recommended word count as stated in the brief. The maximum word count limit is the recommended work count plus 10% leeway. Submissions which exceed the maximum word count limit will be marked only up to the maximum word count limit. Any text that exceeds the maximum word count limit will not be marked. You must follow the note on word count as stated in the Submission Requirements section of the brief.**
- You must submit a paper copy and digital copy (on disk or similarly acceptable medium). Media containing viruses, or media that cannot be run directly, will result in a fail grade being awarded for this assessment.
- All electronic media will be checked for plagiarism.

Scenario

GeekUp is a new start-up company looking to disrupt the eBay market with direct trades between collectors.

The business has been set up to circumvent the growing fees associated with selling on eBay and to help reduce the sale of counterfeit goods.

The company being a start-up has only TWO (2) members of staff owners: Billy and Sarah Hampson.

The owners have secured investor funding of £25,000 and want to use part of these funds to develop the app. At this time the company is looking to be an app only enterprise, but some funding is being reserved to develop a website if needed.

The company does not employ full time developers at this time, so they have opted to outsource development to a local software house Disrupt Digital. The project has a timeframe of SIX (6) months to complete.

The initial requirements have been discovered through early discussions and are as follows:

- The app will be free to download and have no membership cost or additional costs.
- The app will be deployed on the Android platform initially with an iOS version to follow.
- The app will allow THREE (3) searches to be performed before prompting the user to create an account / log in.
- The app should allow sign-ins using Google accounts to allow easier, faster logins and to reduce forgotten passwords. This will extend to Facebook and other fast login options.
- Users can save searches and have a notification sent to the phone. UI to remind them on a custom basis (daily, weekly, every Friday) or even set to prompt when a new item is listed.
- The app will use a machine learning algorithm to scan items to help speed up listings and to help identify fake items.
- The app must be responsive – have little to no lag on devices up to FIVE (5) years old.
- The app must be easy to use.
- The app where possible should use images and icons over text.

The typical user journey will consist of the user setting up an account either listing an item for sale or purchasing an item in a similar way to how eBay operates. Users will be given ONE (1) single account but can opt to be a buyer or seller on the platform.

The app will support all typical payment options (PayPal, Visa etc.).

Task 1: Introducing DSDM and Agile practices (1,100 words) – 20 marks

- a) Research and justify the use of DSDM over traditional approaches (waterfall) for Geekup. You must provide at least TWO (2) advantages and/or TWO (2) disadvantages within your answer. Where possible you must use elements of the scenario to support your answer.

(10 marks)

- b) Illustrate all the main phases of the DSDM lifecycle. Provide a brief description of each phase. In your answer, you should refer to the scenario.

(10 marks)

Task 2: DSDM Principles (600 words) – 10 marks

Explain FIVE (5) DSDM principles **and** provide an example of how they could impact this project. You must use the scenario in your response.

Task 3: DSDM Products (600 words) – 10 marks

Identify FIVE (5) DSDM products that should be generated over the duration of this project. Provide a short description of each product you identify along with listing which DSDM role could be involved in producing the product or that would be required to approve the product. You must identify each product as being either an Evolutionary or Milestone product.

Task 4: Requirements / User Stories (600 words) – 10 marks

Produce FIVE (5) User Stories from the requirements listed in the scenario above. Explain the difference between a User Story and an Epic. Research and support your answer with examples.

Task 5: Modelling (Sequence Diagram, Class Diagram) - 20 marks

- a) Produce a sequence diagram demonstrating your proposed flow of a customer purchasing an item from the app. You must note any assumptions made in the diagram.

(10 marks)

- b) Produce a Class Diagram of the system being proposed in the scenario. You must include any assumptions made in the diagram.

(10 marks)

Task 6: Prototyping (1,000 words) – 10 marks

Explain the difference between Architectural Spike and Proof of Concept defined as capability/technique prototype methods. You must provide examples of use within the context of the scenario.

Task 7: Retrospective (1,100 words) – 20 marks

- a) Explain the term 'Timeboxing'. Support your answer by illustrating a timebox for this project. Provide justification for estimates of effort per element. Review the scenario for key information relevant to answer this question.

(10 marks)

- b) Research and suggest why another agile approach might have been preferred for this project.

(10 marks)

Submission requirements

A word-processed document of 5000 words must be submitted incorporating the full documentation of all tasks of the assignment above. Diagrams created using alternative software should be converted into a suitable image file format (e.g., JPEG) and inserted into the document as images. The document should be submitted both in paper form and digital form. Digital copies should be on an appropriate medium (CD, DVD, USB flash drive, etc.).

Word Count

The word count for this assignment is **5,000 words**. Pay careful attention to the mark allocation for each task so you don't spend too much time on any ONE (1) section.

You **MUST** state the word count in the header of your assignment and declare the number of words on your assignment cover sheet. You **MUST** confirm that you have not exceeded the stipulated word limit by more than 10%.

Any words written beyond the stipulated limit will not be read by the examiners; no marks will be awarded, and no feedback provided for any text beyond the prescribed limit.

In accordance with accepted academic practice, the notion of a word count includes the following without exception:

- All titles or headings that form part of the actual text. This does not include the fly (or cover) page or reference list.
- All words that form the actual essay
- All words forming the titles for figures, tables, and boxes. However, this does not include the text within boxes, tables, or figures themselves.

- All in-text (bracketed) references
- All directly quoted material.

Candidate checklist

Please use the following checklist to ensure that your work is ready for submission.

Have you read the NCC Education document *Academic Misconduct Policy* and ensured that you have acknowledged all the sources that you have used in your work? ☐

Have you completed the *Statement and Confirmation of Own Work* form and attached it to your assignment? **You must do this.** ☐

Have you ensured that your work has not gone over or under the recommended word count by more than 10%? ☐

Have you ensured that your work does not contain viruses and can be run directly? ☐