



**Unit:**  
**Agile Development**

**Assignment title:**  
**Business Bargains**

**Summer 2019**

**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. Click on 'Policies & Advice' on the main menu and then click on 'Student Support'.
- You must read the NCC Education documents *What is Academic Misconduct? Guidance for Candidates* and *Avoiding Plagiarism and Collusion: Guidance for Candidates* and ensure that you acknowledge all the sources that you use in your work. These documents are available on the NCC Education website. Click on 'Policies & Advice' on the main menu and then click on 'Student Support'.
- You **must** complete the *Statement and Confirmation of Own Work*. The form is available on the NCC Education website. Click on 'Policies & Advice' on the main menu and then click on 'Student Support'.
- Please make a note of the recommended word count. You could lose marks if you write 10% more or less than this.
- You must submit a paper copy and electronic copy. 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.

## Introduction

*Business Bargains (BB)* is a wholesaler and distributor of electronic and other office products based in the South East of England. The organisation has three warehouses, based in Luton, Watford and Romford. They specialise in purchasing products in bulk from businesses which have gone into administration (gone bankrupt) and then sell these items via regular auction events at their warehouses.

Purchasing staff need to identify what products will sell well, and what goods they could make a good profit from. This will vary depending on time of year and how strong the market is in different sectors, which depends on the general economy. Shipping/ transport costs must be calculated to ensure products are still profitable once these are included.

Auctions are held on a weekly basis at each of the three warehouses. Each warehouse is open for viewings the day before the auction at that site, so that potential buyers can inspect the lots and make purchasing or bidding decisions. Potential buyers may also choose to submit bids prior to the auction, similar to eBay's Buy It Now prices. The warehouse staff must then take payment for sold lots and work out and arrange transportation of the goods to the successful purchasers and, if requested, arrange and charge for shipping or transportation.

At present, all bids must be submitted at the live auctions, which restricts sales to the local area. The analysis of which liquidation items to purchase is also calculated manually by company employees, and this is not seen as the most efficient way to do things. Invoicing is also done manually at present.

In order to streamline the purchasing decisions and expand their sales market, Business Bargains have set aside £200,000 to hire a company to create analysis software for purchasing – including analysing past sales and transport costs, create an online auction site, and provide online invoicing for the purchased lots.

The expectation is that the analysis software would be a desktop application that makes use of the existing company database of purchases and sales. The auction site would be a web application which would allow all lots to be made available for bids, allow users to register online, to submit bids prior to as well as during the auctions, and to pay for successful purchases online. The web application would also have its own administrative front-end, in web form, that would allow Business Bargains staff to upload new lots to the site and set start and end times for auctions. The software should track all auction lots, customers, warehouse stock, ensuring there are no over-allocation issues (i.e. two customers having Buy It Now bids accepted at the same time for the same auction lot).

BB want this web front end to be especially easy to use, noting that the level of IT literacy amongst some of their long-standing warehouse employees is low. They are keen for purchasing and warehouse staff, and a selection of their current customers, to be involved in the design and testing of the web app to ensure that it will be straightforward for them to use, taking into account that many of their customers are used to physical auctions and not necessarily very IT literate.

*Luton Technologies (LT)* is a development consultancy based in Luton. They have a track record in the development of database driven web based applications, and have expressed an interest in developing a proof of concept for this site. BB has decided to

contract LT on a “time and materials” basis for the development of their new web application and associated backend.

The key deliverables associated with this application are as follows:

- Store the details of all inventory/ auction lots currently held in each of the three warehouses
- Store the details of when each lot will be auctioned
- Store details of the cost to purchase each auction lot
- Store details of sold auctions lots including the purchaser, price achieved and transport costs
- Store the sales method for each auction lot – online or in person
- Store the sale type for each auction lot – highest bid or Buy It Now
- Analyse business liquidation stock for suitable purchases based on previous sales, demand for products available, purchase price and transport costs to get the stock
- Allocate purchasing staff to negotiate deals which the software has identified as meeting BBs profit margin requirements
- Allocate warehouse staff to handle deliveries, open viewings, and getting lots ready for auction.
- Allocate auctioneers for live auctions
- Allow customers to register on the website
- Allow customers to view photos and videos of auction lots via the website.
- Allow customers to submit Buy It Now offers
- Allow customers to bid online during the live auctions
- Allow customers to make online payments for successful bids
- Allow customers to choose suitable delivery times for successful purchases

Understanding that you are new in this area, the CEO has asked you to put together a plan for a user focused investigation into the topic. You are expected to explain how this problem statement can be turned into a more rigorous requirement specification. You are **not** required to write this specification document, only to come up with a plan for how it is to be developed. It is expected to be user focused and incorporate regular checks for approval with BB management.

Given that you will be managing a new team, you can recruit your own team members. In particular, there will be a round of recruitment aimed at choosing the development team. As part of this recruitment, you will be expected to put together a set of four role specifications for the team you want to build. These role specifications should list key skillsets (no more than four per role), expected weight of contribution to the project (full time or part time, or task based contract), and previous qualifications and experience. When you have set out your person specifications, you should assign the hypothetical candidates to the sprints and timeboxes associated with your development methodology.

You have available a pool of testers and clients as part of the *BB* management team, and you will be expected to make reference to these when it comes to setting up your project structure. As with your staff, you can define the person you want for each phase and they will be recruited as needed. However, within *LT*, you will need to collaborate with a named person in the organisations structure.

### Business Bargains Staff:

- **CEO** (Stuart Alexander) – Stuart founded the business over 30 years ago. He is very busy with expansion plans for the business, but as the driving force behind this project he has set time aside in his busy schedule to ensure the success of this initiative.
- **Head of Finance** (Sarah Gordon) – Sarah is a qualified accountant and manages the organisations accounts, payroll and cashflow, and has been with the company for 8 years. Her main interest in this project is obtaining increased profits by expanding their customer base and spending fewer staff hours identifying good potential purchases from businesses. She has no involvement in the warehouse management or purchasing decisions.
- **Purchasing Director** (Roswana Saleh) – Roswana has been with the company for 7 years and knows what sells and what doesn't sell from each of the three warehouse locations. She has good knowledge of the local business market including which companies are in trouble and what business supplies are currently in demand. She has a busy schedule but is happy to be involved in the project.
- **Warehouse Manager Luton** (Vasil Dimitrov) – Vasil has been with the company for 12 years and worked his way up from warehouse assistant to manager during that time. He has a good working knowledge of how to organise products into lots, tidy them up, tag the inventory and get lots looking good for inspections. He is used to showing potential customers around the lots during open viewings and explaining the benefits of a range of diverse items that come up for auction.
- **Warehouse Manager Romford** (Matthew Cruickshanks) – Matthew has been with the company for 18 months, having previously worked offshore in the oil industry. He is sceptical about the move into online auctions due to the weight and therefore likely shipping costs for most of the lots and the awkwardness of selling items on the basis of photographs and video demonstrations.
- **Warehouse Manager Watford** (Sharon Bow) – Sharon has been with the company for 3 years, having previously worked in logistics for a large supermarket chain. She has experience of making purchasing decisions and is concerned that the new analysis system may undermine her job role.
- **Warehouse Assistant** (Sean Locke) – Sean has been with the company for 6 years on a part-time basis. He is in his early 60s and is semi-retired.
- **Warehouse Apprentice** (Joe Gershwin) – Joe has worked for the company for 4 months as part of a two year modern apprenticeship. He is still learning basic aspects of the warehouse role.

## Tasks

### Task 1 – 25 Marks

Stuart Alexander of BB understands that you are new to both website design and software development within this business context. As such, he would like you to critically discuss your chosen development methodology and explain why it is appropriate for a data-driven scheduling project like this application. Your report should:

- outline the EIGHT (8) principles of DSDM Atern **and** evaluate how these principles will be applied to the project **(16 marks)**
- describe how agile methods can be used to effectively reinforce user and managerial feedback through the project **(4 marks)**

- discuss how the specifics of this project are served by the theoretical benefits of the framework **(5 marks)**

This task requires 500 words.

## Task 2 – 12 Marks

Create the *person specifications* for the FOUR (4) hypothetical people you will look to recruit to the project. For each of these people, you should define:

- Skills **(1 mark)**
- Experience **(1 mark)**
- Weight of contribution **(1 mark)**

This task requires 300 words.

## Task 3 – 13 Marks

You have been asked to explain the importance of the *Business Ambassador* role in the Solution Development team and to identify a suitable individual to perform the *Business Ambassador* role in the Solution Development Team. You have been given a list of FOUR employees to choose from for this role:

- Stuart Alexander
- Sarah Gordon
- Vasil Dimitrov
- Joe Gershwin

Provide a response which:

- Explains the role of the *Business Ambassador* and why it is important. **(5 marks)**
- Identifies a suitable candidate for the *Business Ambassador* role from the four people listed above. **(2 marks)**
- Provides TWO (2) reasons why the selected candidate is suitable **(4 marks)**
- For two of the people who were not selected, provides ONE (1) reason why they would not be suitable for the role. **(2 marks)**

This task requires 400 words.

## Task 4 – 25 Marks

Produce an annotated diagram that shows the iterative involvement of: (1) each member of the team; (2) the tasks with which they will be tasked; and (3) how the software will be prototyped. The diagram should also show how users are to be incorporated into the process and which members of BB will be involved. Do this with relation to the Identify → Plan → Evolve → Review iterative development cycle.

## Task 5 – 25 Marks

Provide a plan for the project, with the expectation this will be presented to the senior management team of BB. You should provide information on the following key elements:

- Timeboxes (5 marks)
- Estimates (5 marks)
- Expected sprints (5 marks)
- Anticipated deliverables (5 marks)

You should also provide a completed Project Approach Questionnaire (5 marks) that addresses each of the key elements and provides your view as to where the criteria have been met.

The word limit for the entire coursework is 2,000 words.

## Submission requirements

A word-processed document 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.).

## Candidate checklist

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

- |   |                          |
|---|--------------------------|
| Have you read the NCC Education documents <i>What is Academic Misconduct? Guidance for Candidates</i> and <i>Avoiding Plagiarism and Collusion: Guidance for Candidates</i> and ensured that you have acknowledged all the sources that you have used in your work? | <input type="checkbox"/> |
| Have you completed the <i>Statement and Confirmation of Own Work</i> form and attached it to your assignment? <b>You must do this.</b>  | <input type="checkbox"/> |
| Have you ensured that your work has not gone over or under the recommended word count by more than 10%?   | <input type="checkbox"/> |
| Have you ensured that your work does not contain viruses and can be run directly?   | <input type="checkbox"/> |