

MIS701 Assignment 2 (Group)

Total mark: 30 - Contribution to the final mark: 30%

Your mission in the Module 2 project is to undertake requirements analysis and modelling tasks for a business technology project at BanhMi2U, i.e. your client from Module 1.

Case Study: BanhMi2U - from Module 1, Assignment 1 project.

BanhMi2U is a chain of over twenty Vietnamese bread shops in the CBD and around Melbourne. “Banh Mi” is a popular Vietnamese baguette roll stuffed with butter, pâté and a range of fillings (for example crispy pork, crispy chicken, roast pork belly, and tofu), and topped with herbs, cucumber slices, and pickled veggies. BanhMi2U is owned and managed by a young couple, Mr. Ken Tran and Mrs. Katie Lancaster. In addition to bread rolls, they also offer other Asian cuisines such as different types of dumplings and rice paper rolls.

BanhMi2U has a simple website and a Facebook business page to list their shops’ locations, menu, food photos, and contact details, as well as interacting with their customers. In addition, they also advertise their foods via Yelp. They have a small technology team to manage the information and interaction through their website, Facebook and Yelp pages. They receive an increasing number of food delivery orders from local customers. They have a good number of reliable food delivery drivers.

Recently, Mr. Ken Tran and Mrs. Katie Lancaster have purchased a chain of eight bread shops and restaurants. Therefore, they are reviewing all their foods, services, and business operations. They are aware of an increasing competition in the foodservice industry and appreciate the need to invest in technology. Mr. Anuj Pandya has been appointed as their Head of Technology to assist BanhMi2U in managing their business growth and technology investment.

BanhMi2U is keen to explore possibilities of using technology for customer engagement, customer loyalty and retention, food ordering and delivery tracking mobile apps, order inventory management software, social media, and so on. Particularly, Mr. Anuj Pandya is interested in expanding their food delivery services, either through using an existing platform such as Menulog, Uber Eats and Deliveroo, or developing their own mobile app. Regardless of which app to use, BanhMi2U would like to maintain and grow their customer base, as well as developing a good understanding of their customer food purchasing behaviours. In Module 1, Mr Anuj Pandya invited you and your team to explore possibilities and implications.

Assignment 2 Project

As a step in implementing their digital platform solution, BanhMi2U is developing new food ordering mobile solution. At this stage, BanhMi2U has provided you with following initial project ideas:

BanhMi2U Customer app

1. The prospective customer must read and agree on terms and conditions to use the BanhMi2U app.
2. The prospective customer will be offered with an option to register. If they choose to register, they are required to provide their name and contact detail.
3. The customers who have a BanhMi2U account can add, retrieve, update and delete their payment and/or delivery address.
4. All customers, regardless of whether they have a BanhMi2U account or not, can browse the food menu, search for foods, select to read any available food in the menu for details, as well as reviews made by other customers.
5. All customers, regardless of whether they have a BanhMi2U account or not, can order foods.
6. When ordering foods, the customer is required to specify delivery address and pay for their order before submitting the order. They can retrieve and use the delivery address and payment details stored in their account or enter new details.
7. The customer can make multiple orders.
8. Customers can cancel their order any time.
9. Customers can access, update and cancel their accounts any time.
10. Customers who have a BanhMi2U account can review and rate their restaurants and foods.

BanhMi2U Restaurant Administration app

The app and its associated back-end process shall enable BanhMi2U

1. to access and view the order lists
2. to select orders and arrange drivers
3. to prepare meals and arrange meal pick-ups
4. to track deliveries
5. to receive payment for meals and make payment to drivers
6. to contact customers as needed

BanhMi2U Driver app

The app and its associated back-end process shall enable BanhMi2U drivers

1. to register to be BanhMi2U drivers
2. to select food orders that they can pick-up and deliver within some agreed timeframe with BanhMi2U
3. to receive payment for each delivery

BanhMi2U would like the app to have tracking functionality for food, such as enabling their restaurant owners and waiters as well as customers to track the order fulfillment and food delivery progress.

Additional requests regarding the new mobile apps:

1. The new mobile app shall provide the customers with the account information, legal information, clear and simple interactions.
2. BanhMi2U would like to be advised about data privacy regulations. For example, when a customer removes their accounts, what from their personal information and data about previous transactions should be removed, what can be kept for reporting and business intelligence?
3. The new mobile app should authenticate their registered customers before allowing them to access their BanhMi2U accounts.
4. BanhMi2U account holders should be able to update username and password to access their accounts.
5. The new mobile app shall work on a wide range of mobile devices.
6. All functionality of the app should also be available via major web browsers.

BanhMi2U is looking forward to your proposed food ordering solution.

Your tasks include:

- Part 1: in week 4, determine stakeholder requirements and undertake a requirements analysis using House of Quality
- Part 2: in week 5, develop a Use-Case diagram
- Part 3: in week 6, develop a Sequence diagram and a domain Class diagram
- Part 4: in week 7,
 - develop a BPM for the food order fulfilment and delivery tracking process.
 - an executive summary based on the works performed in parts 1, 2, 3 and 4.

Assignment 2 will be assessed using the following rubric:

		Not attempted	Needs improvement	Satisfactory	Good	Very good	Exceptional
Assignment 2 – Part 1 (7 marks)	Voice of Customer & Voice of Engineer (ULO2, GLO1)	0 points	1.6 points	2.2 points	2.6 points	3 points	4 points
		Stakeholders' needs and requirements not identified or in-comprehensible.	Stakeholders' needs and requirements identified. User importance for each need defined. Clear errors and omissions.	Stakeholders' needs and requirements identified. User importance for each need defined. Minor expression issues.	Stakeholders' needs and requirements identified. User importance for each need defined and justified.	Stakeholders' needs and requirements well expressed. User importance for each need defined and clearly justified. Some requirements satisfy multiple needs.	Exceptional quality, needs and requirements well-articulated, novel approach, beyond expectation. Targets specified and justified.
		0 points	1.2 points	1.65 points	1.95 points	2.25 points	3 points
	Relationship & Correlation Matrix (ULO2, GLO1, GLO4)	Relationships and correlations not identified or in-comprehensible.	Relationships and correlations identified. Clear errors and omissions.	Relationships and correlations identified. Minor syntactic and semantic issues.	Relationships and correlations correctly identified and annotated.	Relationships and correlations correctly identified and justified . Absolute importance of each requirement calculated.	Exceptional quality, requirements ranking convincing, well justified , novel approach, beyond expectation. Relative and absolute importance correctly calculated.

		Not attempted	Needs improvement	Satisfactory	Good	Very good	Exceptional
Assignment 2 – Part 2 (6 marks)	Use Case Diagram (ULO2, GLO1)	0 points	2.4 points	3.3 points	3.9 points	4.5 points	6 points
		Elements of use case diagram not identified or in-comprehensible.	Elements of use case diagram identified. Clear errors and omissions.	Actors, use cases and associations correctly specified and relevant. Minor syntactic and semantic issues.	At least five actors and five use cases identified, relevant, technically correct, and appropriately named. Actor hierarchy defined. All associations are correctly specified.	At least five actors and five use cases identified, relevant, technically correct, and appropriately named. Actor hierarchy defined. All associations are correctly specified and relevant.	Excellent presentation. Use case model is technically sound, relevant and address all the requirements. Use case extensions and inclusions correctly specified.

		Not attempted	Needs improvement	Satisfactory	Good	Very good	Exceptional
Assignment 2 – Part 3 (8 marks)	Sequence Diagram (ULO2, GLO1)	0 points	1.6 points	2.2 points	2.6 points	3 points	4 points
		Elements of sequence diagram not identified or incomprehensible.	A sequence diagram produced for the primary event flow. Clear errors and omissions.	A sequence diagram produced and briefly documented for the primary event flow. Minor syntactic and semantic issues.	A sequence diagram produced and briefly documented for the primary event flow. Actors and events are correctly named and logical.	A sequence diagram produced and briefly documented for the primary event flow. Actors and events are correctly named, logical, complete to achieve the use case's goal.	Excellent presentation. Technically sound. Relevant and complete. Flow of data between the actor(s) and the system clearly defined. Understanding of reflective system events demonstrated. (extra readings).
	Domain Class Diagram (No operations) (ULO2, GLO1)	0 points	1.6 points	2.2 points	2.6 points	3 points	4 points
		Elements of class diagram not identified or incomprehensible.	Few elements of class diagram identified. Clear errors and omissions.	A class diagram has been provided. Key domain concepts identified. Minor syntactic and semantic issues.	At least five domain classes, and their associations identified. Class, attributes, associations clearly defined, representing key domain (data) entities.	At least five domain classes and their associations identified. Class, attributes, associations clearly defined, appropriately named, representing key domain (data) entities. Direction and multiplicity of associations provided.	Excellent presentation. Technically sound. Relevant and complete. Direction and multiplicity of associations provided. Generalisation, aggregation and/or composition relations shown. (extra readings).

		Not attempted	Needs improvement	Satisfactory	Good	Very good	Exceptional
Assignment 2 – Part 4 (9 marks)	Tasks and Gateways (ULO2, GLO1)	0 points	1.2 points	1.65 points	1.95 points	2.25 points	3 points
		Tasks and gates make no sense.	Serious problems with logic.	Tasks are specified and inter-linked and gateways are identified. Minor syntactic and semantic issues.	Tasks are specified and inter-linked and gateways are identified. Two (sub)processes correctly modelled.	Tasks are specified and inter-linked. Gateways are logical, their type correctly chosen. Three (sub)processes correctly modelled.	Excellent presentation. Technically correct. Relevant and complete. All gateways are logical, their type correctly chosen, sequence of tasks having clear purpose.
	Events and Messages (ULO2, GLO1)	0 points	1.2 points	1.65 points	1.95 points	2.25 points	3 points
		Events and messages make no sense.	Serious problems with logic.	Events and messages clearly identified. Minor syntactic and semantic issues.	Events and messages clearly specified and linked with tasks.	Events and messages clearly specified and linked with tasks. Collaboration between participants is correctly modelled.	Excellent presentation. Technically sound. Relevant, complete. All messages between pools or lanes are modelled correctly and logical.

		Not attempted	Needs improvement	Satisfactory	Good	Very good	Exceptional
		0 points	1.2 points	1.65 points	1.95 points	2.25 points	3 points
	Executive summary (ULO2, GLO1, GLO4)	Aspects not identified or incomprehensible.	Few aspects identified and briefly described. Recommendations not clear or specific.	All aspects described. Recommendations are clear, and specific.	Recommendations are clear and specific. The summary is presented at managerial level, clear, coherent, and convincing based on analysis and findings from four parts of the assignment.	Recommendations are clear and specific. The summary is presented at managerial level and cross-referenced with tables and models. The summary is clear, coherent, and convincing based on critical analysis and findings from four parts of the assignment.	Recommendations are clear and specific. The summary is presented at managerial level and cross-referenced with tables and models. The summary is clear, coherent, and convincing based on critical analysis and findings from four parts of the assignment. Exceptional quality and fits on one page.