

Assignment 01 - Questions

Q1 - Identify the business case (need) for the project. (Maximum 50 words - 1 mark)

- Give 1 mark – Generally if students have mentioned about the new IT application as being important to serve the expansion of her new business / the new dollar chain's e-commerce activities
- Deduct 0.5 marks – If explanation is very generic and weak
- Deduct 0.5 marks – If explanation is too lengthy and verbose

E.g. 1 mark

1. To facilitate Trisha's business expansion, the business will adopt a digital application to achieve operational efficiency. The e-Commerce solution will improve the inventory management efficiency by automatically re-filling stock but also safeguard inventories through automatic reconciliation. Moreover, the new system will optimize the cross-selling strategy which will be more profitable.

2. The business case for this project is to develop an e-commerce system to speed up service processes and enhance service efficiency. Furthermore, the E-commerce system can help Trisha save time on managing orders from suppliers, decrease the waste of food inventory, and provide personalized discounts and shopping recommendations. Ultimately help her business become more successful and profitable.

3. The need for the project is to support 'Trisha's Dollar Den' e-commerce activities including providing useful shopping related functions for customers, making better re-supply and inventory management decisions, as well as boosting sales through target marketing and price discrimination empowered by data mining and machine learning technologies.

Good. The explanation covers the business needs to service efficiency, inventory management and help the business be profitable.

E.g 0.5 mark

This business case requires that developing a Mobile Application. It provides people the ability to shop online analysing and order food items automatically as much as required and issue coupons to specific customers.

Explanation- not sufficient as it only focusses on the shopping aspect of the app and the functionality rather than why Trisha wants that functionality

Trisha planned to start a chain of stores called 'Trisha's Dollar Den' with an initial funds of \$300,000 would start in August 2021 and expected to be completed in 9 months. She wanted an e-commerce web application and a mobile app to support e-commerce activities. The website should enhance sales.

Explanation- not sufficient as it focusses on what she has asked for rather than why she needs it

E.g 0.25 mark

In the first phase, the software should support user login function, purchase product function, automatic recommendation function, discount function, order management function.

Explanation -These are requirements/ system functions, they are not business needs.

The store is founded by an experienced entrepreneur using an existing successful business model, and funded by Australia leading bank. The requirements are achievable, while the budget is not high but profitable. The e-commerce system including an online shopping platform and analyze demand, cost, etc for a chain store.

Explanation – scenario description more so than focus on business needs

Trisha is paying money to the Simple Solutions, a small IT development company to develop a mobile application and an e-commerce website for her upcoming chain of stores called 'Trisha's Dollar Den'. This is, part of her rebranding and expansion process.

Explanation – scenario description more so than focus on business needs

Example of answers that got 0 mark

System functions/features

Focus on the business and not include the website/app

Q2- Identify 2 constraints for the project (Maximum 250 words -2 marks)

There are multiple constraints from which the student can identify three. Marker Discretion.

1 mark per constraint- so each is considered separately- to earn the 1 mark

- Deduct 0.5 marks – If explanation is very generic and weak
- Deduct 0.5 marks – If explanation is too lengthy and verbose

Budget- there was no details of how much would be spent of the 300000 loan, so 0.5 total mark for that constraint UNLESS very detailed explanation of costs of the stores, retail people etc to get 0.75 or 1 mark.

Time constraint- a detailed discussed including 9 months and May 2022.

Quality

Data not based on market research for the new stores only old stores (don't know consumer buying patterns or behaviours)

Manual process to upload existing data to the system.

To get full 2 marks – explanation for all constraints should be very clear and succinct and well described and justified from the case study.

Q3 - Identify two challenging characteristics that would make the project difficult. Discuss why you consider them challenging. (Maximum 200 words – 2 marks)

There are multiple challenging characteristics from which student can mention two. Marker Discretion

1 mark per characteristic- so each is considered separately- to earn the 1 mark

- Deduct 0.5 marks – If explanation is very generic and weak
- Deduct 0.5 marks – If explanation is too lengthy and verbose

Examples of answers that got 1 mark

The complexity and scope of the project is not balanced to the costs available for the software project, not all the functionality can be delivered given the available project funds are to be shared with new shop set up.

Examples of answers that got 0.5 mark

The data and algorithms are very complex and require history that is not available.

Explanation -This is quite vague, what history do you need and why? Why is it complex

Q4 - Identify four things that could go wrong – otherwise known as *Risks*, resulting in the project not achieving the intended goal/s. Ensure that you identify risks that are unique to the characteristics of this case study, rather than generic risks that can occur in any project. These include project members leaving the project, running out of budget before completion or IT security risk (Note the list of generic risks given here is not exhaustive). Describe the *Impact* each of these risks could have on the business, project and/or the software product. (Maximum 250 words - 4 marks)

Risks can be from diverse sources – such, project risks, technical risks etc.

Be flexible in assessment – students generally present in a variety of formats (Arguments as text paragraphs, table with Probability / Impact assessments, to name a couple)

Business risks for Trisha are not risks for the project.

1 mark per risk- so each is considered separately- to earn the 1 mark

- 0.5 describe an acceptable risk with explanation (0.25 marks of the 0.5 marks) if risk is not well explained and justified
- 0.5 impact with explanation should be clear (0.25 marks of the 0.5 marks)– if explanation is generic and weak/verbose

The risks identified should be closely aligned to the case study and the explanation for each risk to be very clear and succinct for students to get full 4 marks

E.g. 1 mark

A lot of the future product logic processes are manual based and in Trisha's head only, making Trisha is single point of failure **Impact:** if she was to become unwell project will suffer and be blocked

The design of the software may not be intuitive to users e.g. poor software design of separate logins.

Impact: Loss of customers, economic loss

Adequate testing of the system may not be possible due to proximity of software release compared to store launches. **Impact:** software testing will not be integrated with real store stock.

Paper based data will be poorly converted when converted to digital data. Impact: Machine learning computations to predict stock buy and discounts will be wrong and lead to stock loss. **Impact** effect profits.

The smart algorithm for re-ordering of food items may severely underestimate the demanding practice . **Impact** This will impact the customer fulfilment as the stores don't have enough inventory. This will also extend the project to further modify the algorithm for better predictions.

As the business is new, the e-commerce system it may difficult to estimate the number of users.

Impact This will impact user experience and sales.

Trisha may want to change the scope of the project halfway such as prioritizing tasks from the second phase of development to be done in the first phase. **Impact** This could cause more cost and time delays of the project.

E.g. 0.5 mark

Team does not have experience with Machine Learning, only eCommerce sites.

Team MAY not have (enough) experience (probability not 100%) and the IMPACT is

Trisha does not give the team as much data as is required for machine learning IMPACT?

The software will be hacked and customer data stole

Why would this app be a target for hackers? Please justify further

Q5 - Discuss two possible lifecycle models (SDLCs) you would consider for the project. This should include the pros and cons of each of your choices referring to specific project characteristics and risks you have identified. Use case study references and external references to support your argument. (Maximum 800 words – 6)

In order to get full marks the arguments should be comprehensive – How each SDLC fits into the characteristics of the model, what are the PROs of each model, what are the CONs of each model (as related to the characteristics / risks) of the case study

Please look at your detailed feedback for more info

Q6 - From the 2 possible choices in Q6, choose the most suitable SDLC and justify your choice referring to specific project characteristics and risks you have identified. (Maximum 200 words – 2 marks)

Marker Discretion – Look for the general quality of arguments in the justification.

- **Deduct 0.5 Marks** – For fair to good arguments in general, give the student 1.5 marks
- **Deduct 1 Mark** – If the final choice has weak or unrelated connection to arguments from Question 5

If there are two or more good reasons justified, give 2 marks

Please look at your detailed feedback for more info