**Platform Delivery Assessment – Scenario Analysis and Logic Test**

**Please read the following instructions:**

There are 2 parts to this assessment:

**Part 1:** Scenario Analysis which includes 4 Questions.

**Part 2:** Technical Logic Test which includes 2 Logic Questions.

* Please ensure you complete both parts. This means you need to answer **6** questions in total.
* You have **1 hour** to complete the test.
* This document includes an area for you to type your responses. You can enter your responses into this document, or if you prefer you can document your responses in an email format. Whichever approach you choose, **please ensure that you save your work as you go along.**
* When responding to questions in the Scenario Analysis, please remember to point out all the steps you have considered, including for example (but not limited to) the internal colleagues or teams you might consult, any system check you would consider, any timeline changes you would consider, any contact you would make with the customer etc.

**\*\*\* Please return your completed document to <<Insert Name>> via email at <<Insert Time>> \*\*\***

**PART 1: Scenario Analysis**

You are a Platform Delivery Consultant working in the Platform Delivery team. You are responsible for 7 customers, 3 of which are currently in an active project. 1 is a new customer project, project A, and 2 are annual change projects, projects B and C.

**Project A** is due to commence customer testing in 2 days when you identify an issue with the Healthcare Cash Plan benefit during some of your own internal testing. The benefit requires the use of the newly released Document Upload feature of which this is the first live customer adopting it. Upon enabling this feature the benefit page cannot be opened and displays an ugly error message. Unless resolved quickly the error will cause a delay in releasing the benefit to the customer for testing.

One of your colleagues is completing some quality checks on **Project A** when they notice that a benefit listed in the customer contract has not been started. Upon a review of the project task list, it appears that due to an internal tooling error, the work task was not generated.

On the same day you attend your weekly customer call with the **Project B** team. During the meeting the customer indicates a new, but significantly important change for them. Due to recent claims history, the rates for their existing Medical Insurance provider have increased greatly, leading them to source both better terms and cover flexibility from another insurance provider. The customer has also asked for some unusual additional features to be included on the benefit selection page which you have not come across previously. The customer is keen to understand the feasibility of their request and is willing to pay the going rate for this change. There are 3 days left until the customer is due to commence their testing.

Customer testing for both **Project A** and **Project B** is scheduled to run for no longer than 2 weeks. Both customers have created an internal marketing campaign to advertise the launch of their platform to their employees.

**Project C** has just commenced its platform configuration and has 4 weeks remaining before customer testing commences. There are currently no issues identified with the project.

Note - Projects are run in the following way:

1. Project strategy and planning
2. Requirements gathering and platform design
3. Platform configuration and internal testing
4. Customer testing and project sign-off
5. Platform launch
6. Live platform access (employees make their benefit selections)

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| **Question 1:**  For Project A, it appears that an error has occurred using the new Document Upload feature.   * How might you verify the error is connected to this new feature? What are the wider impacts created by this error and what steps would you take to address those? |
| **Please document your answer to Question 1 here:**  As stated in the scenario, after doing some internal testing of Project A, I encountered an ugly error message. To verify if the error is connected to the new feature, I will look at the error log and start analysing by checking the timestamp, error code and the message indicated. I will also need to check the deployment time to determine if the error only occurred after deploying the new feature.  After I have checked the error log, I’ll reproduce the error or incident and make sure that it’s not a user error.  To determine the wider impacts created by the error I’ll check if there is a document about the new feature and understand the scope so I can determine what system it interacts with.  I’ll then collaborate with the QA Engineers to ask about the result of their regression testing and collaborate with the developers to work on the incident or error as they have more insights into how the feature could be causing the error and have it fixed and set it as priority before deployment. |
| **Question 2:**  Now that you are aware of the missed benefit for Project A, how would you approach this problem knowing you are fully utilised? Please outline any steps you would take. |
| **Please document your answer to Question 2 here:**  **First Step: Assessing the issue.**  I will assess if the bug affects core functionality, or this is just a minor bug by determining if it is a user impact or a business affecting impact.  **Second Step: Communication is priority,**  I will have to communicate the problem based on the assessment to the stakeholder or to the client, making sure that I can set proper expectations together with the proposed deadline of the solution.  This can also benefit the team as it can avoid the delays of the other projects.  **Third Step: Escalating to the right department.**  I will seek help to other teams or colleagues if the issue is out of my scope. This can help save time especially Project A deployment is coming near.  **Fourth Step: Document the problem.**  It is important to document the problem and the proposed solution, so that if the same thing happens again, a solution is already ready and I or the team can determine on what to do to fix the error.  **Last Step: Review and adjust.**  Reviewing the proposed solution, adjusting what was impacted by the issue and making sure that continuous improvement is being practiced preventing future bottlenecks. |
| **Question 3:**  The project B customer has requested a change. Please outline how you would respond to the customer on the call when they raise this project change request. |
| **Please document your answer to Question 3 here:**  I would acknowledge the request by the Project B customer and make sure that I can have clarification about the request.  If the request would take more resources and time, I would set proper expectation to the customer about the timeline and budget. I’ll also let the customer be aware that I need to have a discussion with the team about the change request and will follow up about what was brain-stormed and the summary of the discussion.  I will also provide feedback and tell my initial thoughts to the customer and let them know if the requested changes could affect any features in the development of the project.  After this, I would reassure the customer that me and the team is committed to quality, and we’ll get the best possible results.  Before ending the call, I will make sure that I got everything by discussing a summary of the request. |
| **Question 4:**  For the Project B change request, what steps would you take to assess the feasibility of the requirements and the ability to deliver the change. |
| **Please document your answer to Question 4 here:** |

**PART 2: Technical Logic Test**

**Technical Logic Test Question 1: Holiday Trading**

In CompanyABC, Employees are able to buy and sell holidays up to a certain limit based on the following variables and rules:

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| Variable | Definition |
| MinHol | The minimum number of holiday days that an employee is allowed after selling holidays. Currently this value is 23 days. |
| MaxHol | The maximum number of holiday days that an employee is allowed after buying holidays. Currently this value is 30 days. |
| CoreHol | The number of holiday days that an employee has before buying or selling holidays. This value varies for each employee. |
| DaysWeek | The number of days per week which an employee works. This value varies for each employee. |
| MaxSell | The maximum number of days which an employee can sell. This value varies for each employee. |
| MaxBuy | The maximum number of days which an employee can buy. This value varies for each employee. |

The Logic Expression for the trading is:

IF CoreHol <= MinHol THEN

MaxSell = 0

ELSEIF CoreHol – DaysWeek < MinHol THEN

MaxSell = CoreHol – MinHol

ELSE

MaxSell = DaysWeek

ENDIF

IF CoreHol >= MaxHol THEN

MaxBuy = 0

ELSEIF CoreHol + DaysWeek > MaxHol THEN

MaxBuy = MaxHol – CoreHol

ELSE

MaxBuy = DaysWeek

ENDIF

Bob and Sarah are employees in Company ABC.

* Bob has 26 days of core holiday and works 5 days per week.
* Sarah has 24 days of core holidays and works 6 days per week.

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| **Based on the logic expression shown above, and the information you have about Bob and Sarah’s core holiday and workdays:** | |
| **Question** | **Please Document Answer here:** |
| (a)How many days of holiday can Bob buy? |  |
| (b)How many days of holiday can Bob sell? |  |
| (c)How many days of holiday can Sarah buy? |  |
| (d)How many days of holiday can Sarah sell? |  |

**Technical Logic Test Question 2: Childcare Vouchers**

The Childcare Voucher Benefit allows employees to purchase Childcare Vouchers out of their pre-tax salary. The maximum voucher amount they may select is based on their tax bracket. Below is a breakdown of the Maximum Childcare Voucher amounts available to Employees on each Tax Bracket.

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| Tax Bracket | Maximum Voucher |
| Lower Rate | £243 |
| Higher Rate | £124 |
| Additional Rate | £97 |

There is an exception to this: any employee who has been purchasing vouchers since before April 5th 2011 will have a Maximum Voucher Amount of £243.

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| **Question:** **Write an expression which could be applied to a Childcare Voucher benefit to determine an Employee’s Maximum Voucher amount. You do not need to write this in a specific programming language, but you do need to use the following terms:**  IF  THEN  ELSE  ELSEIF  AND  OR  NOT  = (equals)  != (doesn’t equal)  > (great than)  >= (great than or equal to)  < (less than)  <= (less than or equal to)  In your answer, **please define any variables you use** e.g. “TaxRate = Employee’s Tax Bracket”. |
| **Please Document your answer to Logic test question 2 here:**  def available\_voucher(employee, tax\_bracket, amount):  tax\_rates = {  'Lower Rate': 243,  'Higher Rate': 124,  'Additional Rate': 97  }  # We will get the first purchased date from the employee dictionary  first\_purchased\_date = employee.get(‘childcare\_first\_purch\_date’)  # Determine the applicable tax rate  if first\_purchased\_date <= '2011-04-05':  applicable\_rate = tax\_rates['Lower Rate']  else:  applicable\_rate = tax\_rates.get(tax\_bracket)  voucher = min(amount,applicable\_rate)  # Return the amount or the applicable rate, whichever is lower  return print(‘The maximum voucher you can get is {voucher}”) |
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