FINAL DOCUMENT – (FLIGHTPATH) GROUP ID 3

DOCUMENT INCLUSIONS –

PROJECT JUSTIFICATION –

We are planning on using multiple ways of justification for our project choice, the first beginning with a weighted scoring model. The reason we would like to use a weighted scoring model is due to its ability to scale the projects all together taking out bias and allowing us to weigh them against our strategic goals and what we want to achieve from the project.

Our key strategic goals for the project include -

- A project that can be implemented within 3 months.

- A project that can be easily modified to fit the customers located country.

- A project that is to continue growing/continuous work

- A project that promotes return customers and produces customer growth.

- A project that has minimal cyber security threats/risks.

- A project that has a Easy access system to learn/use

- A project that has low maintenance costs

Here is a screenshot of the following strategic goals compared to each project, the project names have been shortened into Project 1 (Flight Manager), Project 2 (FlightPath), Project 3 (FlightLounge).

Strategic Goals	Weight	Flight Manager	FlightPath	FlightLounges
A project that has minimal cyber security risks	30%	65	85	70
A project that can be implemented within 3 months	15%	79	80	87
A project that promotes return customers and produces customer growth	15%	70	85	90
A project that has low maintanence costs	15%	85	73	78
A project that is continuous/can be expanded on	10%	70	85	80
A project that has an easy access system to learn/use	10%	80	75	75
A project that can be easily modified to fit a customers located country.	5%	85	75	70
Weighted Project Scores	100%	73.85	80.95	78.25

BUSINESS CASE –

The Problem

The main problem occurring at FlyDreamAir is the lack of a loyalty program system as part of FlyDreamAir. This lack of loyalty program at FlyDreamAir, if not looked at all, will affect FlyDreamAir in two aspects. The customers and the company itself.

In terms of the customers, a loyalty program shows respect to the customers as it shows that FlyDreamAir cares about their customers. It is known that FlyDreamAir was founded ten years ago, which is fine as the company will need to establish a loyal base of customers. However, not giving them a reason to stay will make them easily switch to another airline company (further discussed in analysis of existing business).

For the company itself, a lack of a loyalty program, also charging the same ticket prices as our competitors and also the limited number of discounts to the tickets in a financial year, will result in limited customers using our services that will lead to loss of money in FlyDreamAir

Our solution (FlightPath)

FlyDreamAir's solution is to impose a new system to be part of FlyDreamAir is a loyalty program called FlightPath and to have a digitised management system for the staff to manage the loyalty program system.

Details of the loyalty card and how the customer can register –

When the customer signs up to the loyalty program (FlightPath), the customer will need to pay for an upfront fee before the customer receives a loyalty card via mail or immediately through a digital wallet system (Apple Wallet for example). The card will contain personal details of the user (customer) which includes, Full Name, preferred phone number, unique membership number (also known as MemberID) and membership type (Bronze, Silver, Gold). The membership will also have a barcode which the customer will be able to scan their membership card at the front counter during the process of purchasing their ticket.

The ways that a customer can earn Points –

There will be two ways that the FlightPath member will earn points: through using their membership when purchasing tickets or transferring points from other companies' loyalty programs.

Every time the customer does use their FlightPath loyalty card, they will accumulate points (depending on which ticket type and flight the customer uses). For example, if a customer flies on a Monday, economy class from Sydney to Gold Coast could be 100 points. The number of points will vary depending on the type of ticket purchased.

Also, as well FlightPath members will be able to transfer points from other loyalty programs to our FlightPath loyalty program. To note: the customers will only be able to transfer points from other companies if we have a deal with them. The amount of the points generated will depend on the number of points they have with the other company. For Example, let's say we have a deal with FlyBuys, 1000 FlyBuys points could be equivalent to 100 points for the FlightPath loyalty program. Note: The partnership and points are not final, it is just an example.

The type of loyalty card –

The type of rewards that will be provided in FlightPath will vary depending on the type of loyalty card that the customer has. Every customer that signs up to FlightPath will start at the lowest level which is Bronze and will accumulate points until they reach a certain point at

which they can upgrade their membership to a Silver level and the same process until they can reach Gold level which will be the highest level. The level progress for our membership is as follows: Bronze -> Silver -> Gold. For example, to get to Gold membership the customer will need to accumulate 100,000 points. As the customer uses their loyalty card level, at certain points could land them with a benefit. For example, at Bronze level if a customer accumulates 1,000 points they can get 10% off their next flight.

Note: These examples may not be the final points system introduced.

Managing the FlightPath system from the staff –

This is where managing the system comes into play. The FlightPath system will need to be able to be managed by the workers who use this part of the system. These scenarios can include the following:

- The system will need to detect a new customer and add that user to the database.
- This will also mean that the membership number will need to be unique to each person that signs up.
- When a customer achieves a certain point limit
- When a customer achieves a new level in the membership, the system will need to automatically change their membership level and issue a new membership card immediately.

- When a customer hits a certain point amount in their membership, the system will need to automatically issue them the reward.
- Security will need to be implemented to ensure that sensitive information about the customer is not in the hands of the wrong people.
- The website itself will need to handle large numbers of people using the website at the same time.

FlightPath website for the FlightPath members –

In conjunction to all of this a website will be developed which the customers can access. When a customer wants to register with FlightPath and from that link there will be entering their personal details, and also creating a username and password. This username and password will be associated with the customer's FlightPath membership.

In order for the customers to access their information in regard to their FlightPath membership the customer will need to enter their correct username and password that's linked with the username. When the user enters the correct username and password,

they will be able to manage their membership. The customer will be able to manage in the following ways:

- Able to view their current status of their membership.
- View the current membership status.
- View the number of points.
- Present to the user the rewards that the user will be able to use.
- Cancel their membership.

- View other progress with our partners.
- The users will be able to transfer their points from our partnership to our FlightPath loyalty program.
- Be able to link other companies. loyalty programs onto this website.

Anticipated benefits –

The anticipated benefit of FlightPath is as it follows:

- Retain loyal customer base -
  - o With a loyalty program like FlightPath, customers will be receiving great rewards when using FlightPath. But mainly the loyal customer will feel like their loyalty to the company will be worth it with this addition.
- Attract new customers -
  - o Depending on the benefits that FlyDreamAir will provide in FlightPath. It could be considered better than what our competitors are doing with their loyalty

program which could attract new customers which could become loyal customers.

- Create relationships with other companies -
  - As this loyalty program system will also be incorporating the transfer of points. These relationships with other companies can be significant, as they can advertise that their points can be used in our system. Which can also be another way in attracting new customers.

Analysis of Existing System

Description of the old System

Upon discussing with the head of the company at FlyDreamAir, it's apparent that the company doesn't have an 'old system' when it comes to a loyalty program. This will mean that FlyDreamAir has only booked flights for customers and that's it. For a company that has only just started, a loyalty program isn't needed at the start, as the starter company's main focus is to get customers. Whereas FlyDreamAir is an airline that has been around for ten years who is still a new airline company but without a loyalty system implemented in the near future, this will affect the customer's loyalty to our company, affect the company financially and troubles with retaining customers. The list below explains the effects this will have on the company without a loyalty system.

- **Dependent on the prices of FlyDreamAir tickets**
- **Create a negative image of the company**
- **Loyal customer will be felt like they don't matter**

Dependent on the prices of FlyDreamAir tickets

Because our company doesn't have a loyalty program to potentially make ticket prices cheaper. FlyDreamAir is dependent on the ticket prices that they are providing their customers (variation if flying domestic or international).

During discussions with the head of FlyDreamAir, prices range from $99-$499 when flying domestic and much more when flying international. When making comparison with one of our competitor Qantas, they are also providing their customers with the similar price range* (see below the conclusion for further detail). However, since Qantas provides a program in which a customer of their company can accumulate points and get half off or free tickets.

Also as well noted by the head of FlyDreamAir that only occasionally does ticket prices go on a discount. We interpret this statement as only doing discounts for Easter or Christmas. Which does mean that they are providing a discount to their customers, but most of the year they are charging the same prices for their tickets.

This is why FlyDreamAir is very dependent on the ticket prices. The ticket prices that FlyDreamAir and Qantas have are almost the same, however Qantas provides a loyalty program which could save money for customers, get additional benefits if they use their loyalty membership for a long period of time, and get regular discounts on ticket prices from the company. This could and most likely result in customers at FlyDreamAir switching over to Qantas or another airline company, which will lead to a smaller customer base within FlyDreamAir.

Therefore, since FlyDreamAir cannot depend on ticket prices and occasional discounts to retain customers, this is one of the reasons that we cannot continue not having a loyalty program at FlyDreamAir.

The prices that I have taken into consideration are the flights from Sydney to Brisbane, Sydney to Melbourne on the 13th of May 2023 for domestic flights, and Sydney to London on the 13th of May 2023 for international flights. The price to fly from Sydney to Brisbane is $148, and the price to fly from Sydney to Melbourne is $239 and the price to fly from Sydney to London is $1938 (cheapest price). *__Note__: These ticket prices were looked at 27/04/2023.

__Create an negative image of FlyDreamAir__

The target market (which are the customers) create the 'company image' based on the actions that are undertaken by the company. In this case FlyDreamAir, which currently relies on the ticket prices to retain customers, depending on the prices, customers determine if they

wish to use FlyDreamAir services. As FlyDreamAir is a young airline company, it's critical that the decisions that are made will have a positive impact on FlyDreamAir's customers and the company in the future.

FlyDreamAir doesn't have a loyalty program, which has been fine as they will need to establish a customer base first. However, this cannot continue. As mentioned in the 'depending on the prices that FlyDreamAir tickets' section, FlyDreamAir's tickets prices are similar prices to our competitors (Qantas) and don't provide regular discounts to our customers. This can create a negative image of FlyDreamAir that FlyDreamAir is an expensive company which can further lead to the perception of the customers that we are only for the wealthy customer base. This image 'created' by FlyDreamAir can result in the following: our customer base is only the wealthy customers, which will result in losing the less wealthy customers. Or losing customers in general because our services can be 'similar' to a competitor, but that competitor can provide more services at the same price, which can result in 'what is the point of our company?'

The additional negative image factor that can be created by the airline customer base is the fact that we don't do regular discounts on the ticket prices (in comparison to competitors such as Jetstar and Qantas). Which will add an additional negative image that we are extremely money hungry to the point that we don't even want to discount the prices of the tickets to get every single bit of money possible out of the customers to make bigger profits. If this image is perceived by FlyDreamAir customers and also the border airline customer, it will most likely mean that they will not use our services which will mean a lower customer base using our service and losing profits.

Therefore, since this future projection of FlyDreamAir will most likely occur with a negative image being labelled on FlyDreamAir, is another reason for the fact that FlyDreamAir cannot continue not having a loyalty program for their customers.

Will not retain loyal customers

It is known that FlyDreamAir has only existed for ten years. This is the prime time to retrieve and retain those customers to remain loyal to FlyDreamAir. Retaining loyal customers to a company is harder compared to loyal fans to a football team, as football fans will stick to their

football team **no matter what!** A company is much different, as soon as another company offers something a little better, the customer will most likely immediately leave without hesitation. The only reason that they may not is if that person was supporting the company since the foundation day of the company.

The fact that FlyDreamAir has been around for ten years could mean that there are some customers that have been around since the foundation date of FlyDreamAir. The company needs to provide their loyal customers with reasons to stay with our company, but the company is not doing that. Tickets prices are the same as the competitor, so the low-cost airline hasn't been met. Also, as another note, the ticket prices are the same to all customers, what does that mean?

For example, Customer A has been flying with FlyDreamAir for ten years and Customer B has just bought their first ticket. Both of their ticket prices are the same. However, Customer A will feel like their loyalty for the past ten years to the company has not been worth it. Customer A is not getting any discounts or additional benefits because of their loyalty to the company. The only benefit that is received is what they will both get when the company does their occasional discounts. Customer A will most likely leave FlyDreamAir and use another service which cares about loyal customers.

In summary, it is apparent that loyal customers in the future will leave our company and go to another airline company if we don't do something about retaining these loyal customers. Therefore, this is an additional reason that FlyDreamAir cannot continue not having a loyalty program for these customers.

Conclusion

It is now apparent that this cannot continue at FlyDreamAir. The lack of a loyalty program will only cause harm to FlyDreamAir in the future. With all the factors considered if this system was to continue, we can conclude that something will need to be addressed about this issue and a probable solution of a loyalty program will need to be considered.

Cost vs Benefit

When building a loyalty program for FlyDreamAir, it's crucial to focus on the conduct of a cost vs benefit analysis to determine if the program is worthwhile and with a **$500000** budget how can we allocate resources effectively.

Costs

- **Build**: This includes the cost of hiring developers and designers to create the program infrastructure and software, also setting up the necessary hardware and servers. Nevertheless, we need an online platform, mobile application and payment gateways that require experts and staff to manage and monitor the program. This will probably cost around $150000.
- **Reward**: The cost of providing rewards to FlyDreamAir members will depend on the types of rewards we offer. For instance, our program could offer discounts of 20%,30% or 50% or we could offer free flights when our loyal customer has earned a certain amount of points as well as we offer the loyal customer a night at some hotel when they land which also includes pick-up service. This will cost us around $125000.
- **Marketing**: The cost of promoting this program to potential customers will include advertising, social media campaigns, and other marketing efforts. For example, first we aim for middle adulthood customers then we should focus on running ads on TV or the news websites. The cost of running ads on TV could also depend on the time of day we book which from 7pm to 9pm will cost more. Second, if we aim for early adulthood then we should focus on well-known platforms such Facebook, Twitter or even YouTube which have a lot of potential customers. Depending on the target customer this will cost us around $125000.
- **Operational**: The cost of running and maintaining the program could include customer service, program management and technology upgrades. Depend on the size and complexity of our program, this could cost us around $100000

Benefits

- **Customer loyalty**: A loyalty program can incentivise customers to remain loyal to a brand, leading to increased customer retention rates and more repeat purchases over time.
- **Revenue**: Loyal customers are likely to spend more money with a brand, as they are incentivised to earn rewards and receive special offers. This can lead to increased revenue for the business.
- **Data collection**: A loyalty program can provide valuable data on customer behaviour and preferences, which can be used to inform marketing and product development strategies. This data can be used to create personalised offers and promotions for customers, leading to increased engagement and sales.
- **Competitive advantage**: A well-executed loyalty program can give a brand a competitive advantage in the market, making it more attractive to potential customers. A loyalty program can help to differentiate a brand from its competitors, especially in crowded markets.

With a budget of $500,000, it is important to carefully consider the costs and benefits of a loyalty program before proceeding. Based on the analysis above, it is clear that the potential benefits of a loyalty program can outweigh the costs. However, it is also important to consider the specific context of the business and its customers to determine whether a loyalty program is a good fit.

Because business operates in a competitive market and struggles with customer retention, a loyalty program is really a worthwhile investment.

Net Present Value (NPV)

Assume that this loyalty program will generate cash flows of 5 years.

(Year 1: $100,000, Year 2: $150,000, Year 3: $200,000, Year 4: $250,000, Year 5: $500,000)

Discount rate of 10% so the NPV will be $546,202.

This means that the loyalty program is a good investment and is expected to generate more cash flow than the initial investment of $500000.

Return on Investment (ROI)

Assume that the net profit generated by the loyalty program over the five-year period is $750,000

Based on the initial investment of $500,000, the ROI for the loyalty program is 50%.

This means for every dollar invested in the program, FlyDreamAir will generate an additional 50 cents in profit over the five year period.

Feasibility Study

This section of the documentation will explain why the loyalty program for FlyDreamAir will be feasible in the technical, operational, economical, and scheduling aspects of the project, with potential problems that may arise and how the IT staff will impose possible solutions to the potential problems.

Scheduling

Scheduling refers to the aspect of if our IT staff will be able to complete the project by the proposed due date 31st May 2023, this will mean that every aspect of the project from the documentation to the implementation of the website will need to complete by this due date set by our company (FlyDreamAir). This deadline alongside the amount of tasks that need to be finished before the project due date will most likely need our IT staff having stress due to the high amount of work that needs to be completed. Also, without a plan could cause our IT staff to leave it to the last few weeks of the project's due dates which will create stress and the project in the long run being not successful.

This can be resolved by appointing a project planner to create many schemes which will ensure that this project can be completed on time. The project planner will create a gantt chart which is a management tool that will allow our IT staff to visually see when tasks are to start and completed, also which tasks are critical which will ensure that our IT staff will be productive and complete their risk without the risk of delaying another task and responsibilities indicated at each tasks for how is going what. The Gantt Chart will contain phases and milestones at the end of these phases. These phases will be different parts of the project lifecycle from identifying the problem to implementation of the project and at the end of these phases a milestone will identify that the phase has been completed. This will allow our IT staff to be free from stress as each task will split into different phases, creating the idea of smaller sections at a time. The introduction to milestones will allow our workers to be productive and complete the tasks in that phase before starting another phase.

The idea of additional requirements may be added on top of developing the loyalty program is another factor to consider when ensuring that this project is completed on-time. This will mean that our software developers that are developing the website will need to be communicated As Soon As possible or As Soon As this additional requirement is added to the requirement list, and also the software developer to be proactive and reactive to this sudden additional requirement to implement this requirement in the website before the due date.

Economic

The economic feasibility refers to the cost and benefits of the loyalty program that will happen during the production of the project and after the loyalty program has been implemented into FlyDreamAir. The costs can be split into two components, the ongoing cost and initial cost. The initial cost is the startup cost of the project which can include buying the software and hardware necessary to create the loyalty program, and the ongoing cost occurs after the loyalty program has been incorporated into FlyDreamAir, this cost can include the planned and unplanned maintenance.

The main problem which may occur in projects is that after the project has been implemented it doesn't make any profits in the downline that the initial and the ongoing cost are still higher

than the benefit which will result in the project being unsuccessful. This could be because of poor financial analysis that may have been conducted with those projects. However, this project has conducted financial analysis which are the cost-benefit analysis and payback analysis which displays graphically that the loyalty program down the line that the benefits will overtake the cost in a reasonable period of time after the loyalty program has been implemented.

Operational

Operational feasibility refers to the workers at FlyDreamAir overall agreement with the loyalty program. This "agreement" can be better described as if the workers FlyDreamAir have desires in producing a loyalty system. Any problems that may arise with the workers at FlyDreamAir must be addressed immediately and executed properly. Problems such as disagreement with how the project is undertaken should be addressed otherwise that person could leave the company which may lead to the project not being completed on time or at all. In the case of a disagreement which may lead to a heated argument a mediator will need to come in and attempt to claim the situation down and for both parties to reach an agreement. This will ensure that the worker will be willing to work on the project.

Ethical issues may start to arise such as the fear that lower skilled workers may become unemployed due to the loyalty system being implemented. However, this will not be the case as this system will affect anyone's employment risk but create new jobs at our company as this is a brand-new system at FlyDreamAir. Thus, the loyalty system will create more jobs, not remove jobs.

As new people may work at FlyDreamAir and the current IT staff may not know how to use the loyalty system because being a new system at FlyDreamAir but also for the new people at the company may not be used to this system being developed. Training will be provided to these people to ensure that they will be able to use new skills in being able to use the loyalty system.

As noted in the documentation apart from the loyalty program being developed, the users may be asking for more requirements throughout the development of the loyalty system. These additional requirements will need to be discussed at the company and a decision will

be made based on the cost and the impact it will have on the overall project. Also, as well the IT staff will also need to decide that this potentially additional requirement is in the company's best interest.

Technical

The technical feasibility refers to the technical aspect of building the loyalty program from the ground up. Technical aspects include: if our company has the necessary information technology to develop the loyalty program, if any of the information technologies were to go down what will be protocols taken, and also there are technical staff members to develop and maintain the loyalty program.

Information technology is the most important factor, it determines if the loyalty program can be developed at all. The hardware and software are the components which make up information technology. However, the information technologies that will be chosen will need to be appropriate to the loyalty program system that the IT staff is developing. This will mean that our company will need to be able to purchase the most appropriate hardware required to properly develop the website and also allow information to be stored on storing devices and the software chosen will need to be appropriate as well.

Purchasing cheaper Hardware/Software will ensure that this project doesn't go over budget, however, if these technologies don't match our needs then the risk of the loyalty system not being made will be apparent. Even if the cheaper technologies were fine during production, in the implementation stage these technologies could break down more times compared to the expensive technologies. This will lead to more unscheduled maintenance which will cost the company money. However, buying the appropriate technologies will not be the problem as indicated in the budget our company will be able to purchase the appropriate technologies needed.

When the loyalty program is implemented as part of FlyDreamAir, there will be times in which the system will have an unplanned outage. When this occurs, a technical team will need to be able to resolve this issue in a quick period of time and also have the ability to solve this issue. At FlyDreamAir, there will be a maintenance staff that have the experience in resolving unexpected outages and be able to restore the loyalty program system as soon as they are able to. This means that any unexpected outages that we have as a team will be able to resolve the problem in a short period of time.

Conclusion

In summary, with all the problems that could occur in each of the feasibility factors, our IT staff will be able to impose solutions of ways that these problems will not occur during or after implementation of the loyalty program. As stated that each feasibility will be feasible. Therefore after conducting the feasibility study, the loyalty program for FlyDreamAir will be feasible. That developing this system will only benefit FlyDreamAir.

PROJECT CHARTER –

Project title: FlightPath

Date of Authorisation: 29 March 2023

Project Start Date: 29 March 2023   **Project Finish Date:** 26 May 2023

Key Schedule Milestones:

- Complete Project Planning stage
- Complete Requirement Analysis stage

- Complete Design stage
- Complete Development stage
- Complete Implementation stag

Budget Information: FlyDreamAir has allocated $500,000 for the purchasing of the software and hardware need to develop the loyalty program for FlyDreamAir. Additional funds that will be provided will be between $50,000 to $75,000 in the case that this project does over budget.

Project Manager: Lachlan Angelis, lga247@uowmail.edu.au

Project Objectives: Platform to manage loyalty program from existing flight's data. Also as well, this website will allow customers to register for the loyalty program. Through the FlightPath website, it will be able to update customer's points after a flight as well as upgrade customer's status. This helps improve customer satisfaction and commitment to the franchise.

Main Project Success Criteria: The software must meet all aforementioned specifications (written in the Business Case), the website will be thoroughly tested throughout the project lifetime and be completed on time. The budget is met and this project generates more benefits than cost within a short period of time. The head of the company at FlyDreamAir will formally approve the project with advice from other key stakeholders.

Approach:

- Within a month, develop a clear work breakdown structure, scope statement and a Gantt chart detailing all the work need to be done to complete FlightPath.
- Purchase the appropriate hardware and arrive within a month.
- Integrate the database of FlyDreamAir to the software.
- Hold daily progress meetings with project team and stakeholders.
- Testing the software thoroughly in every stage with approved plans.
- Stakeholders will be testing the website each week throughout the project's lifecycle.

Roles and responsibility:

Lachlan Angelis - Project Manager - lga247@uowmail.edu.au

Austin Baker - Documentation Manager, User Interface Designer - ajb337@uowmail.edu.au

Nicholas John Kasavetis - Analyst - nk922@uowmail.edu.au

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Felix Stone - Programmer - fas344@uowmail.edu.au

PROJECT SCOPE STATEMENT –

Project Title: Implementation of a Loyalty Program for FlyDreamAir (FlightPath)

Date: 2nd May Prepared by: Dinh Quoc Huy Nguyen, dqhn443@uowmail.edu.au

Project Objective: The objective of this project is to design and implement a loyalty program that will help the company retain and reward its loyal customers. The program should incentivise customers to continue purchasing the company's products or services by offering exclusive benefits and rewards.

Scope: The scope of this project includes the following:

1. **Program Design:** The loyalty program will be designed to align with the company's goals and target customer preferences. This includes identifying the program's structure, rewards, and redemption options.
2. **Program Implementation:** The program will be integrated into the company's existing customer relationship management system, and staff training will be conducted to ensure they understand how the program works.
3. **Communication and Promotion:** The program will be communicated to customers through various channels, including email marketing, social media, and in-store promotion. This includes creating promotional materials such as flyers, posters, and digital ads.
4. **Program Maintenance:** The program's effectiveness will be monitored and evaluated regularly, and necessary updates will be made to ensure it remains relevant and effective.
5. **Customer Data Management:** The program will collect customer data to track their purchases, preferences, and redemption patterns. This data will be managed securely and in compliance with data protection laws.
6. **Program Analytics:** Data analytics will be conducted to identify trends, measure the program's effectiveness, and inform future decision-making.

Deliverables:

The following are the deliverables of this project:

- Loyalty program design document
- Program implementation plan
- Training materials for staff
- Communication and promotion plan
- Program maintenance plan
- Customer data management plan
- Analytics report

Justification for project selection: Business Case (Summary of case and analysis of existing system, Feasibility Study, and cost vs benefit analysis), Project Charter, Scope statement, WBS, WBS dictionary, Gantt Chart, Effort/Cost estimation, Meeting records, version control, user interface prototypes, website prototype, project closing, and lessons learnt.

Project Success Criteria: For this project to be a success, the project must be completed within three months and the budget shouldn't go over the initial budget of $500,000. The head of FlyDreamAir and the project Manager has especially mentioned that it must be completed and implemented into FlyDreamAir's system within three months. In order for this budget to hopefully not go over-budget, we will be keeping a track of this budget throughout the project. Even if we go over the budget, the project will still be considered as a success as the payback is still within the timeframe.

User Acceptance Criteria:

- Being Able to manage their loyalty program. This include being able to view the number of points they have, upgrade, and transfer points from other companies.
- Able to use their loyalty program. When the customer purchases their ticket for the flight, the user should be able to scan or enter their membership number when booking the flight.

- Easy to navigate User Interface. The users (FlightPath members) will require that they will be able to navigate through the website. This include clear text, font size and font type. The users are also able to negative through the tabs on the website.

Constraints:

The following are the constraints of this project:

- Budget constraints: The project should be implemented within the allocated budget.
- Time constraints: The project should be completed within the agreed timeline.
- Regulatory constraints: The program should be compliant with data protection laws.
- Technical constraints: The program should be integrated into the company's existing customer relationship management system.
- Resource constraints: The project should be implemented with the available resources.

Assumptions:

The following are the assumptions of this project:

- The loyalty program will be well-received by customers.
- The program's rewards and benefits will be compelling enough to incentivise repeat purchases.
- The program will be cost-effective and generate a positive return on investment.
- The company's staff will be supportive and cooperative throughout the project's implementation.

WORK BREAKDOWN STRUCTURE –

Project Planning

Define project objectives and scope –

- We will develop a clear and concise project scope statement (Quoc Huy)
- Also define project objectives and deliverables (Project Justification)
- Identify project constraints and assumptions (Project Justification)

Identify stakeholders and their requirements –

- Conduct stakeholder analysis.
- Identify stakeholder requirements and expectations.
- Determine stakeholder communication plan.

Create project schedule –

- Project will be implemented within 3 months.
- We will complete first version of the software by 30 April 2023 and complete production version of the software by 30 May 2023
- Project tasks and dependencies
- Allocate resources and estimate task duration:
  - Project Planning   (1 week) $25,000
  - Requirement Analysis   (2 weeks) $50,000
  - System Design   (3 weeks) $75,000
  - Development   (9 weeks) $225,000
  - Develop loyalty program engine (3 weeks) $75,000
  - Implementation   (2 weeks) $50,000
  - Maintenance and Support   (1 week) $25,000
- *This is an estimate of task duration and resources which means actual costs may vary depending on factors such as the specific resources used, any unforeseen issues that arise, and changes in project scope.*

Develop project budget –

- We will try to make this project costs up to $500,000 and more funds are provided if needed.
- Develop project budget and resource plan.
- Identify potential cost savings and risk.

Create project team structure –

- Define project roles and responsibilities.
- Identify project team members and stakeholders.
- Develop project team communication plan.

Our team will define the scope, objectives, and stakeholders of the project. The project charter will be created which outlines the project's goals, objectives, and key stakeholders. A project plan will also be created to help manage the project schedule, resources, and budget.

Requirement Analysis

- **Gather requirements -**
  - *Develop requirement gathering plan to complete FlightPath*
  - *The loyalty program has to be user friendly which mean the customer can easily understand how the loyalty program work (how to collect points, redeem points, apply discount into their next flight, etc) as well as the staff can easily monitor (Further instructions can be provided)*
- **Analyse and prioritise requirements -**
  - *Evaluate requirement feasibility and impact.*
  - *Prioritise requirements based on stakeholder needs.*
  - *Develop requirement traceability matrix.*
- **Identify system constraints -**
  - *Identify technical, operational and business constraints.*
  - *Determine impact of constraints on system design and development*
  - *Develop mitigation plan for constraints.*

Our team will conduct research, gather requirements from stakeholders, and develop use cases. This information will be documented in the requirements specification and use cases.

System Design

- **Develop system architecture -**
  - Design system components and modules
  - Develop system architecture diagram
  - Develop system design specification.
- **Create database schema -**
  - Develop entity-relationship (ER) diagram (optional)
  - Define database schema and tables
  - Conduct database design review.
- **Design user interface -**
  - Develop user interface wireframes and mockups
  - Develop user interface design specification
  - Conduct user interface design review.

A high-level design will be developed for the loyalty program system. Our team will determine the system architecture and develop a design specification.

Development

- **Install and configure development environment -**
  - Install and configure development tools.
- **Develop back-end functionality -**
  - Develop system back-end functionality and modules.
  - Develop back-end functionality design specification.
  - Conduct back-end functionality review.
- **Develop front-end functionality -**
  - Develop system front-end functionality and modules.
  - Develop front-end functionality design specification.
  - Conduct front-end functionality review.
- **Test system functionality and performance**

- o Develop test cases and test plans.
- o Conduct functional and non-functional testing.
- o Address defects and issues identified during testing.

The loyalty program system will be developed based on the design. Our team will develop the program code and conduct program tests to ensure the system meets the requirements.

We also focus on developing the core engine of the loyalty program system. This includes creating the algorithms and rules for the program to calculate points, rewards, status upgrades, and other loyalty-related functionalities.

Implementation

- **Install and configure production environment -**
  - o Install and configure production server and database
  - o Configure system security and permissions.
  - o Conduct production environment readiness review.
- **Deploy system to production environment -**
  - o Migrate system components and data to production environment.
  - o Conduct system deployment and installation.
  - o Conduct system integration testing.
- **Conduct user acceptance testing -**
  - o Develop user acceptance test cases and plans.
  - o Conduct user acceptance testing.
  - o Address user feedback and issues identified during testing.
- **Train users on system functionality -**
  - o Develop user training materials and documentation.
  - o Conduct user training sessions.
  - o Address user questions and concerns.

The loyalty program system will finally be installed and integrated with any existing systems. The installed system will be tested to ensure it functions correctly.

Maintenance and Support

- **Monitor system performance -**
  - Monitor system usage and performance metrics.
  - Address system performance issues and concerns
  - Identify potential system upgrades and improvements.

- **Address user issues and bugs -**
  - Receive and address user issues and bug reports.
  - Conduct root cause analysis and issue resolution.
  - Communicate issue status and resolution to users.

- **Perform system upgrades and maintenance -**
  - Develop system upgrade and maintenance plan.
  - Perform system upgrades and maintenance activities.
  - Address issues and concerns identified during upgrades and maintenance.

- **Provide ongoing technical support -**
  - Provide technical support to users and stakeholders.
  - Address technical issues and concerns.
  - Maintain and update system documentation and user manuals.

We will provide ongoing maintenance and support for the loyalty program system. A maintenance and support plan will be developed, and any bugs or issues that are being sent from the user will urgently be fixed by our team.

Here is the following Gantt Chart –

ID	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1	**Project Planning**	**5 days**	**Mon 6/03/23**	**Fri 10/03/23**		
2	Define project scope	2 days	Mon 6/03/23	Tue 7/03/23		
3	Define project objectives	1 day	Wed 8/03/23	Wed 8/03/23	2	
4	Identify Stakeholders	1 day	Wed 8/03/23	Wed 8/03/23	2	
5	Create Project Schedule	1 day	Thu 9/03/23	Thu 9/03/23	4	
6	Develop Project Budget	1 day	Thu 9/03/23	Thu 9/03/23	4	
7	Create project team structure	2 days	Thu 9/03/23	Fri 10/03/23	4	
8	Project Planning Completed	0 days	Fri 10/03/23	Fri 10/03/23	7,5,6,2,3,4	
9	**Requirement Analysis**	**3 days**	**Mon 13/03/23**	**Wed 15/03/23**	**8**	
10	Gather Stakeholder	1 day	Mon 13/03/23	Mon 13/03/23	8	
11	Analyse and prioritise	1 day	Tue 14/03/23	Tue 14/03/23	10	
12	Identify system constraints	2 days	Tue 14/03/23	Wed 15/03/23	10	

ID	Task Name	Duration	Start	Finish	Predecessors	Resource Names
13	Requirement Analysis	0 days	Wed 15/03/23	Wed 15/03/23	10,11,12	
14	**System Design**	**11 days**	**Thu 16/03/23**	**Thu 30/03/23**	**13**	
15	Design System Architecture	5 days	Thu 16/03/23	Wed 22/03/23	13	
16	Create Database Schema	3 days	Thu 23/03/23	Mon 27/03/23	15	
17	Design User Interface	3 days	Tue 28/03/23	Thu 30/03/23	16	
18	System Design Completed	0 days	Thu 30/03/23	Thu 30/03/23	17	
19	**Development**	**18 days**	**Fri 31/03/23**	**Tue 25/04/23**	**18**	
20	Install and Configure development	5 days	Fri 31/03/23	Thu 6/04/23	18	
21	Develop backend functionality	10 days	Fri 7/04/23	Thu 20/04/23	20	
22	Develop front end functionality	10 days	Fri 7/04/23	Thu 20/04/23	20	
23	Test system functionality and performance	3 days	Fri 21/04/23	Tue 25/04/23	22	

ID	Task Name	Duration	Start	Finish	Predecessors	Resource Names
24	Development Completed	0 days	Tue 25/04/23	Tue 25/04/23	23	
25	**Implementation**	**6 days**	**Wed 26/04/23**	**Wed 3/05/23**	**24**	
26	Install and Configure production	3 days	Wed 26/04/23	Fri 28/04/23	24	
27	Deploy system to production environment	3 days	Mon 1/05/23	Wed 3/05/23	26	
28	Conduct user acceptance testing	2 days	Mon 1/05/23	Tue 2/05/23	26	
29	Train users on system	1 day	Wed 3/05/23	Wed 3/05/23	28	
30	Implementation Completed	0 days	Wed 3/05/23	Wed 3/05/23	29	
31	**Maintenance and Support**	**1 day**	**Thu 4/05/23**	**Thu 4/05/23**	**30**	
32	Monitor system performance	1 day	Thu 4/05/23	Thu 4/05/23	30	
33	Address user issues and bugs	1 day	Thu 4/05/23	Thu 4/05/23	30	

ID	Task Name	Duration	Start	Finish	Predecessors	Resource Names
34	Perform system upgrades and maintenance	1 day	Thu 4/05/23	Thu 4/05/23	30	
35	Provide ongoing technical support	1 day	Thu 4/05/23	Thu 4/05/23	30	
36	**Project Completed**	0 days	Thu 4/05/23	Thu 4/05/23	32,33,34,35	
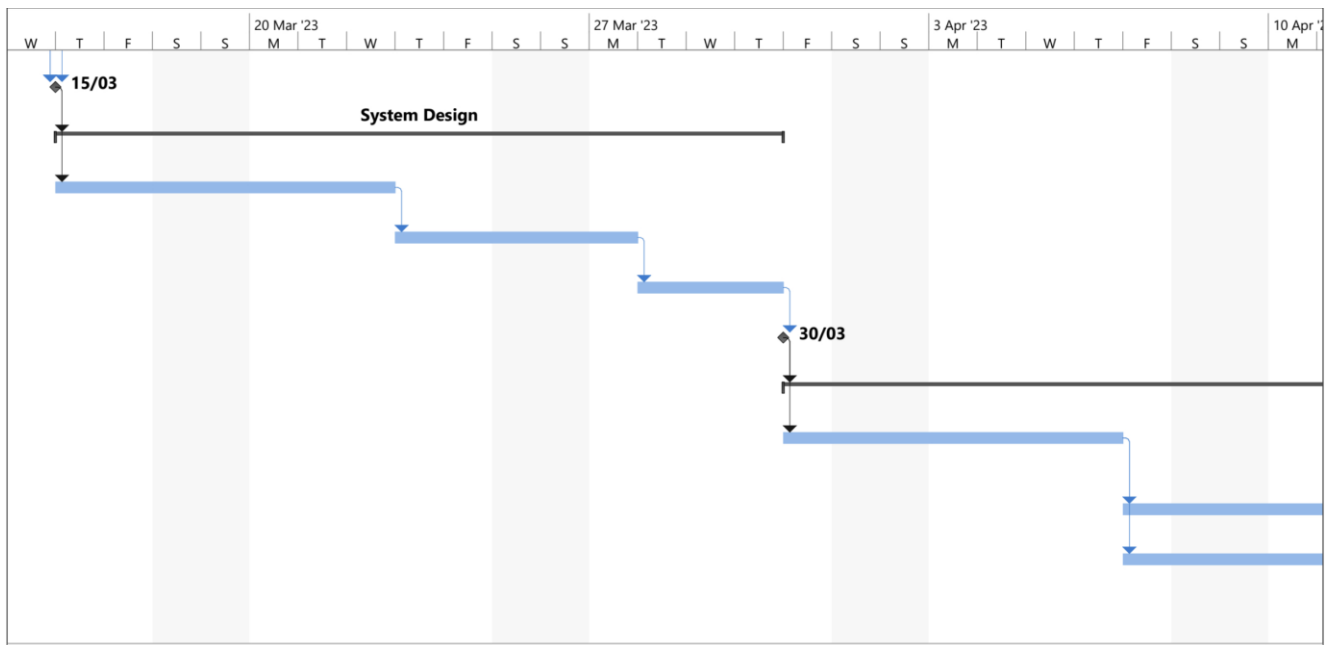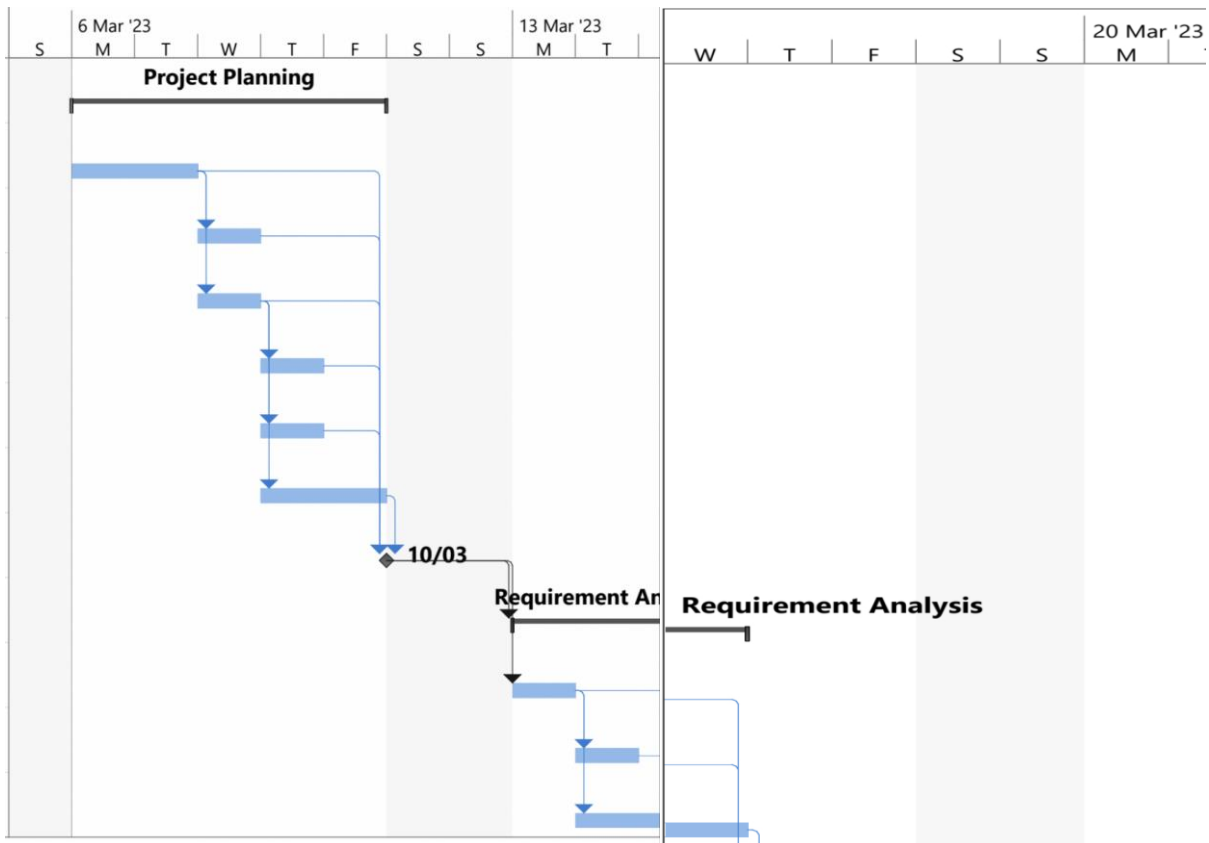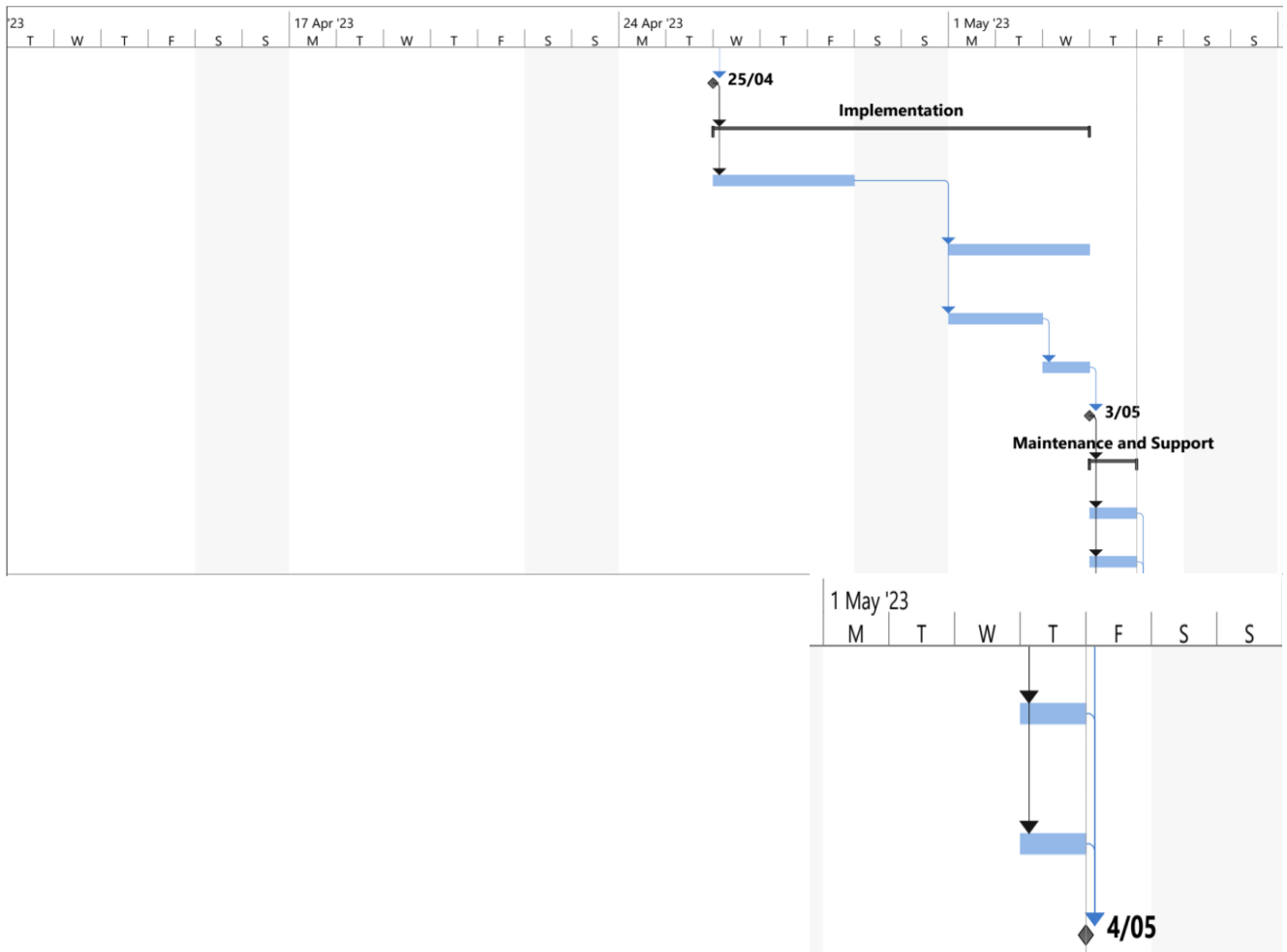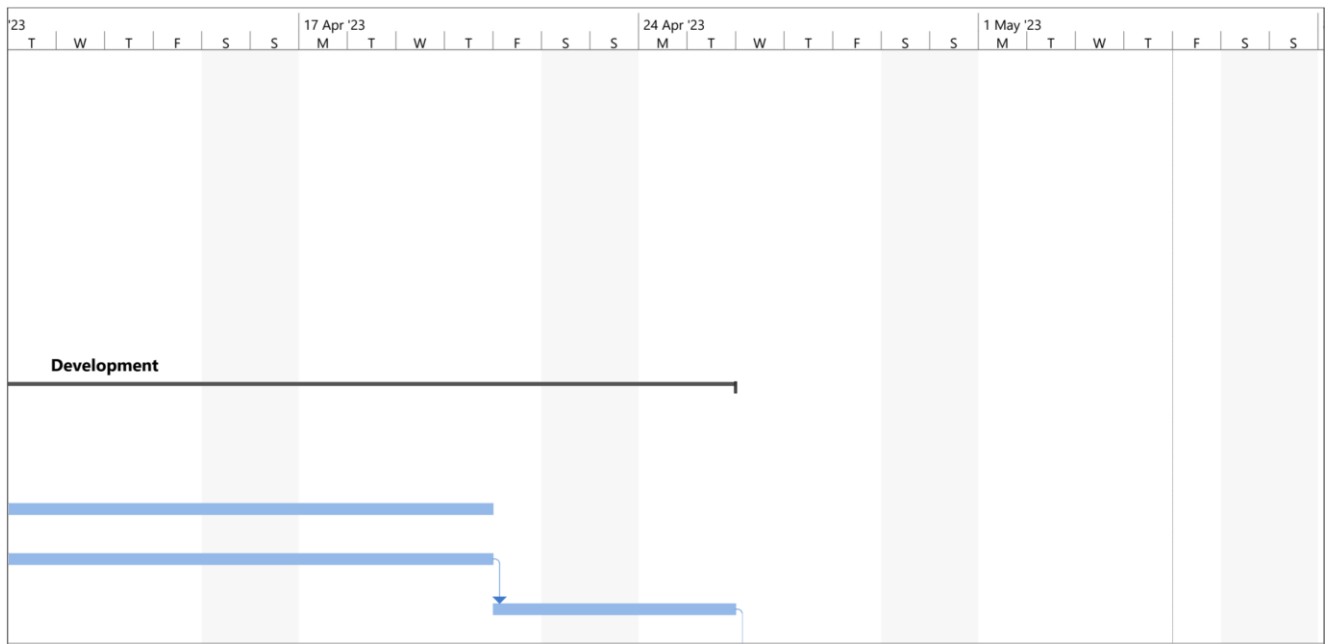
RISK MANAGEMENT –

Risks can occur throughout the project's life cycle. There could be different types of risks that can occur which include Task, Actors (users that have an effect on the project), technology, structure and financial risks that can occur. This means that it is important that these risks can be identified so that a judgment on how the risk will affect the project and protocols to be implemented at FlyDreamAir to ensure that these risks will not happen throughout the project's lifecycle.

Task related risks

A task in the critical path is delayed?

Description: This risk means that if a task in the critical path was not completed by the latest finish time, what risk will that impose on our progress in completing this project on-time?

Assessment: If this was to occur, it will mean that every other task which in this critical path will be delayed, depending on the time in which it does take to complete will result in a delay in the successor task in starting the task. That can further result in the project not completed by the set due date which will mean that the project will be delayed.

Solution: The approach to attempt to resolve this risk is **Risk Reduction and Risk Avoidance**. When the critical path is determined and the people that work on those tasks that are on the critical path will need to provide constant communication day-by-day on their process towards completing the task. If that person is having troubles which has caused that task not being completed by its due date, then extra resources which have an expert field in that task can be added during the task lifecycle to ensure that the tasks can be completed.

The duration of the tasks is longer than expected?

Description: This risk means that if a task has been identified to have a lower effort than expected when the worker is completing the task.

Assessment: If this task was on the critical path, it could result in the tasks that are predecessors in being delayed which further result in the whole project being delayed.

However, if this task is not on the critical path and has slack time then it can provide more time to complete the task.

Approach to the Risk: The approach to this risk is **Risk Avoidance**. Around the beginning of the project, the team will begin to discuss in terms of which tasks need to be completed, who will be assigned to the tasks and the duration of the task. Especially the duration of the task, when the personnel has been allocated to the task, they will be given a time period in which they will believe that the task can be completed (with the expectation

Late change of requirements?

Description: This risk occurs when the stakeholders give additional requirements around the due date of the project.

Assessment: It depends on which the additional requirement can be incorporated into the system on-time. If this additional requirement is a requirement that FlightPath loyalty system needs and there is a shorter period of time can result in the IT staff having to put in a large amount of effort (longer working hours) to incorporate this into FlightPath to ensure that it can be completed on time. However, it will result in a high amount of stress for the workers. Or this addition cannot be added on time, then it will not be part of the FlightPath system and will further result in the users not accepting the system.

Approach to the Risk: The approach to attempt to resolve this risk is **Risk Avoidance**. Constant communication with the stakeholders is important to ensure that late requirements do not occur. Talking to the stakeholders almost everyday about requirements can allow us to retrieve any other requirements earlier than expected. For example, if we talk to our stakeholders almost everyday compared to once a week on friday, if we get an additional requirement on Monday for say if we talk to the stakeholders everyday compared to getting the requirement of Friday with our weekly talks. That is a whole four days difference which can allow our company to have knowledge of the additional requirement.

The duration of the task is shorter than expected.

Description: The time expected to complete the task when the Gantt Chart was created is actually longer than the time to complete the task.

Assessment: This can be taken as a good thing as this early completing on a task could result in starting another task earlier than expected. However, there could be another reason as to completing the task earlier and that can be the fact that the person assigned to that task has completed the tasks not to the standards of FlyDreamAir.

Approach to the Risk: The approach to attempt to resolve this risk is **Risk Reduction**. This risk can most likely occur as it can be shorter than expected. However, if the task hasn't been completed to the standards required after review, then actions will need to be implemented. These include allocating more resources to the specific task. This allocated personnel may also have knowledge in the area of the field, which can mean that the tasks are completed to the standards that are expected. Also another method would be to tell that person that was allocated the task to spend more time on it (until the latest finish date).

Actors related risks

Employees leaving the project's development?

Description: In some cases, employees may leave due to various reasons. In the case that this does occur, FlyDreamAir can find a replacement in a quick period of time.

Assessment: This depends on the type of employee that leaves the project. Due to the limited members of the software developers part of the IT staff. In the case that this quick turnaround in finding a replacement doesn't work out, this can result in either the project being delayed, using an IT staff member that may have less experience in the field compared to their predecessor that may produce a lower standard loyalty system or the project not being developed.

Approach to the Risk: The approach to reduce this risk from occurring is **Risk Mitigation.** The company's IT staff will need to have a backup software developer which is able to

develop a website. This backup software developer will also need to have skills when it comes to developing a website (has knowledge in HTML and CSS).

For any of the analysts that were to leave the project, that all of the IT staff will also need to have analytical skills. The reason is that most of the tasks that are in this project require a high amount of skill in analysis and if anyone was to leave that an instant replacement can be made.

Do the people working on the project have the necessary skills to complete the project? Alongside can we find the people in-time?

Description: When selecting the people to work on this project. Do those people have the necessary skills to complete the project? These skills include: being able to develop the website, analysis skills, design skills and planning skills to complete the project. How can we find these people in-time.

Assessment: In the case that FlyDreamAir was to hire personnel that do not match the standards at FlyDreamAir. Not only that the company standards will drop based on this. Also hiring low skilled personnel could result in the whole project being delayed, could be due to the fact that these personnel do take a long time to complete tasks for this project. Even when this project is completed and implemented as part of FlyDreamAir, the system itself may not function properly (bugs, glitches within the system) which could make the system nonfunctional to the users. Which will lead to the project being a failure.

Approach to the Risk: The approach that will be undertaken for this risk is **Risk Avoidance**. To avoid the risk of hiring IT staff that have low skills. Before starting the project, interviews will need to be conducted for the roles that are needed to complete the project. Before the interviews, the company will be developing criteria for the potential workers that they will need to match our standards that our company expects. For example, for the software developer role, the person will need to have long experience when it comes to developing a website, meaning a knowledge in programming in HTML and CSS.

If the stakeholders don't accept the project?

Description: After implementing the FlightPath loyalty program the user (customers) will deem that this final product is not acceptable. These reasons can include: that they can find the website hard to use or it doesn't meet the requirements specified.

Assessment: If this project (FlightPath) is accepted by the user then this project is successful. However, if this project isn't accepted by our user base (customers), it will result in limited people using this system that can result in the projections of the Cost Vs Benefit Analysis not being met but also users not using the system, then the FlightPath loyalty program will be not a success in fact a project that has failed. It can also worsen our company image, if this system isn't what the stakeholders wanted it can be seen as, "we don't care about any potential loyal customers at all!".

Approach to the Risk: The approach to attempt to resolve this risk is **Risk Avoidance**, to ensure that the stakeholders do accept this final product. Constant communication with our stakeholders will ensure that this doesn't occur as this is a key factor to determine if the project will be successful. At these meetings with the stakeholders will be shown that part of the software has been developed for that week and allow feedback from the stakeholders about the software. From the feedback that we get from our stakeholders, this information can be used to fix the website to their liking as at the end of the day they will be using the website to manage their loyalty card.

Technology related risks

Technology may not be appropriate for the loyalty program?

Description: When the technology has been selected. In the case that the technology

Assessment: If the inappropriate technology was used as part of the FlyDreamAir's loyalty program, then it can result in more unscheduled maintenance than expected or the loyalty program system may not be able to function at all due to the fact that the technology is not able to cope with the loyalty program system. Also using this inappropriate technology could

end up costing more than just purchasing the appropriate technology needed and also cost people's jobs.

Approach to the Risk: The approach to attempt to resolve this risk is **Risk Avoidance**. The way that this risk will be avoided is conducting Intensive research when it comes to finding the appropriate technology. But before that, a technology requirements list can be developed to determine the appropriate technology that FlyDreamAir needs in order for this system to be operated. Writing a requirements list for the technology aspect of the loyalty program will ensure that the technology chosen will be appropriate.

Will the technology be available in time?

Description: When the technology has been selected. When will the purchased technology be delivered on time?

Assessment: If the technology doesn't come on time, then this could halt the process of the software developers in being able to develop the system at all, which can lead to the project not being developed and implemented on-time in accordance to the due date set by the company. Or if the technology was to come in near the due, the software developers could result in working long hours to ensure that the loyalty program system is developed on-time. But however this will create stress for the workers.

Approach to the Risk: The risk approach that should be considered is **Risk Reduction**. This risk may occur but protocols will need to be implemented to ensure that appropriate information technology doesn't come later than expected. The approach When about to purchase the hardware technology aspect of the information technology will also need to determine around the delivery time of this hardware. This delivery time will be compared with our expected delivery time for the hardware to come in to ensure that the software developers have enough time in regards to developing the website.

Structure related risks

In what way will this project change the user and business processes?

Description: When Flight is implemented in FlyDreamAir's system, in what way will this project affect the business process and user processes when purchasing their tickets?

Assessment: If there are significant changes to the processes conducted at FlyDreamAir, it can result in the users (customers) being confused and also it can be a long process in terms of when to use their loyalty card. This could result in the system not being developed due to the fact that there is a long process.

Approach to the risk: The approach method that will be used is **Risk Reduction**. This risk will most likely occur as this loyalty program will affect how users will be able to purchase their tickets. However, a method to reduce this risk from having a massive impact on the customers as well as the FlyDreamAir technical staff. For the managing aspect for FlightPath, it will be new for the customers. To ensure that they don't have a hard time in using the website, a friendly user interface will be created that will be tested by those customers, to ensure that they will find it challenging. As incorporated into FlyDreamAir processes, to ensure there is no feeling of a sudden change, training will be provided to ensure that the technical staff will be able to maintain the website.

If a high amount of systems will need to interact?

Description: The amount of systems that the FlightPath system will need to interact with the rest of FlyDreamAir system. In the case that this system does need to interact with many systems at FlyDreamAir. What will happen?

Assessment: If this FlightPath system (loyalty program system) is expected to interact with many systems at FlyDreamAir, it will result in many occurrences of crashes in the system as a whole due to the fact of the many interactions (overload in the system). Also if the system does need to interact with many systems already at FlyDreamAir, the time to fully incorporate this system into others can take a long period of time, which can lead to the project being delayed.

Approach to the Risk: The approach to this risk will be **Risk Avoidance**. The chances that this risk may occur could be very minimal as it only should interact with the booking system and external companies such as StarBucks. However, in the case that this system does need to interact with many systems will need to implement a system to avoid this. Loyalty programs don't necessarily need to interact with many systems, to ensure that this project can be completed on-time. In the business case, it will describe the loyalty program (FlightPath) and the details surrounding this new system. Whatever is described about FlightPath, that will be it, to ensure that it will be avoided.

EFFORT COST ESTIMATION –

Within this project we have a budget of around $500,000 and an estimated turn around time of about 3 Months or 90 Days. The following is my effort cost estimation based on the tasks involved within the Work Breakdown Structure and Gantt Chart.

Task Name:

Project Planning –

- Define Project Scope
    o 2 Days
- Define Project Objectives
    o 1 Days
- Identify Stakeholders
    o 1 Days
- Create Project Schedule
    o 1 Days
- Create Project Team Structure
    o 2 Days

Total Effort – 7 Days **Function Points –** 40

Here we have an approximate of around 40 function points due to the minimal amount of complex working tasks within the project planning stage.

Requirement Analysis –

- Gather Stakeholder requirements
    o 1 Days
- Analyse and prioritise requirements
    o 1 Days
- Identify System Constraints

- o   2 Days

Total Effort – 4 Days **Total Function Points –** 80

This stage requires a bit more intensive work around interviewing, researching and conducting analysis on what is required of the coming system and will leave us with about 80 Function Points.

<u>**System Design –**</u>

- -   Design System Architecture
    - o   5 Days
- -   Create Database Schema
    - o   3 Days
- -   Design User Interface
    - o   3 Days

Total Effort – 11 Days **Total Function Points –** 120

The upcoming stages of the WBS is where majority of the function points are going to arise from with the complex nature of work in designing a new system. Here we can estimate around 120 Function Points.

<u>**Development –**</u>

- -   Install and Configure Development
    - o   5 Days
- -   Develop Backend functionality
    - o   10 Days
- -   Develop Frontend functionality
    - o   10 Days
- -   Test System functionality and performance
    - o   3 Days

Total Effort – 28 Days **Function Points –** 480

Another part of the WBS that is going to not only become the most complex, but the most effort, time and cost involved with the need for more experts in the field to produce a final product that is worthy. Here we can expect at least 480 Function Points.

<u>**Implementation –**</u>

- Install and Configure production
    - o   3 Days
- Deploy system to production environment
    - o   3 Days
- Conduct user acceptance testing
    - o   2 Days
- Train users on system
    - o   1 Days

Total Effort – 9 Days **Total Function Points –** 80

Implementation whilst not the most labour intensive work can still require a lot of skill and close detail required to get through this stage with an estimate 80 Functions.

<u>**Maintenance and Support –**</u>

Here is probably the easiest work however, this is mainly where projects can fall apart or become successful and it's the maintenance that keeps customers returning. Here we can expect at the least 40 Function Points.

- Monitor System Performance
    - o   1 Days
- Address user issues and bugs
    - o   1 Days
- Perform system upgrades and maintenance
    - o   1 Days

- Provide ongoing technical support
  - o 1 Days

Total Effort – 4 Days possibly ongoing. **Total Function Points -** 40

Total Function Points: 720.

To estimate the cost of the project we use the function points times the estimated cost per 10 hours of work, roughly 1 day. Which gives us around 7200 required personnel hours. At an estimated $50/Hr we can make a very rough guess of around –

7200 * 50 = $360,000

Effort = 7200 Hours.

This is an estimate and doesn't include if tasks run beyond their scheduled time or become more complex requiring additional function points.

We have an at best estimate days spent on the project building of 43 days. However, our goal of providing ongoing support to the project will largely push forward to the 90-day mark until we hand off technical support to an outsourced support team. (Not relevant to this cost breakdown)

MILESTONE REPORT –

Complete Requirement Analysis stage

The items which needed to be completed in this stage was determining the problems which FlyDreamAir is currently facing with their lack of a loyalty program and our solutions to these problems which are turned into the requirements for this project. In the Requirements analysis stage it included the business case which contains a detailed analysis of the current system and its problems, if continued. A summary case which contains a summary of the problems that are currently being faced at FlyDreamAir and our solution in detail in regards to creating a loyalty program system and also a website were FlightPath members are able to manage. Our team also approaches this stage of the project which includes a project charter which shows our stakeholders that the project has started, but also in the project charters it demonstrated the requirements in which this project will be successful. The project scope statement is also another task that has been completed in this stage which will show everything that will be completed (the tasks that will be done), it also shows the user's acceptance criteria which incorporates the user's requirements of the website. Also it illustrates that any problems may occur (constraints) and assumptions when this project is completed.

Complete Project Planning stage

In this stage of the project, it requires a detailed plan in regards to how our team will be executing the project. Our approach to this stage included tasks such as: creation of a Gantt Chart and creating Work Breakdown Structure with alongside it a Work Breakdown structure dictionary and Risk Management. In the Gantt Chart it dominates all the tasks which need to be completed with the resource allocated to an individual that is part of the team, shows tasks that may depend on other tasks in being completed (known as the critical path), and shows clearly the duration of each task. This task has allowed us to clearly see the schedule in terms of what needs to be completed. The Work Breakdown Structure is also included in this stage, the approach to these tasks was to break down the structure into 'little pieces' which has provided benefit to our staff as it can visualise the tasks which needed to be completed, instead of looking at a big Gantt Chart which could be overwhelming. The Work Breakdown Structure dictionary allowed our IT staff to get an understanding in regards to

each of the tasks what needs to be completed, a detailed explanation of each task. In the risk management section it demonstrated each of the risks that may occur and the approach method to those risks, in the risk management it shows that our IT staff is prepared for any risk that comes in our way.

Complete Design stage

In this stage of the project, it will be developing prototypes for the website. These prototypes will be able to tell a story. This story will be how the website will be designed, from creating basic designs for the website, it will illustrate the approach when developing the website. The designs will show what will be included in the website, it will be labelled such as any part of the website which will direct them to a different part of the website will be labelled, any colour scheme, every section of the website, any interactive component, colour scheme, layout, and text. These approaches will be based on the requirements of the users in which they want an easy to use User Interface. Also these designs will need to tell the story to the developers in which they will need to translate the drawing to a functional website.

Complete Development stage

In this stage of the project it's actually developing the website. In our approach we have approached the development from the experience of web development and having the knowledge in developing websites via programming. This stage is all about the translation from designs to implementing those designs. Alongside this our team has also decided to have a version control, which will be used as well to track the progress of the coding of the website from the beginnings of starting to developing the website to the final product.

Complete Implementation stage

In this stage of the project when everything else has been completed, it's time to implement this project as part of FlyDreamAir. In this stage the implementation part of incorporating this into FlyDreamAir, will not be a difficult process as this project doesn't replace any part of FlyDreamAir existing system. Also, our team will be making sure that any of the staff members which will be affected by this project (need to manage this loyalty program), will be given training to ensure that they will be able to use the system in the case of any scenario that occurs.

PROJECT CLOSING/LESSONS LEARNT –

After completing an IT project over weeks, we as a group and individuals ourselves have reflected several lessons upon management and operation of an IT project.

- Planning and Scope: Adequate planning and defining the project scope are crucial. It's essential to have a clear understanding of project requirements, objectives, and deliverables before starting the project. This helps in setting realistic expectations and managing stakeholders' needs.

- Communication: Effective communication is key throughout the project. It's important to establish clear channels of communication and ensure regular updates are shared among team members and stakeholders. Timely and transparent communication helps in addressing issues, managing expectations, and maintaining alignment.

- Project Management: Strong project management practices contribute to project success. Utilizing project management methodologies, tools, and techniques helps with organizing tasks, setting milestones, monitoring progress, and mitigating risks. Adequate resource allocation and time management are crucial components.

- Collaboration and Teamwork: Encouraging collaboration and fostering a positive team environment promotes productivity and enhances project outcomes. Encouraging open communication, cooperation, and leveraging individual strengths can lead to better problem-solving and innovation.

- Risk Management: Identifying and managing risks throughout the project is vital. Conducting a thorough risk assessment, establishing contingency plans, and monitoring risks proactively can help minimize disruptions and ensure project success.

- Testing and Quality Assurance: Ensuring comprehensive testing and quality assurance measures are in place is important. Regularly testing functionality, conducting quality checks, and seeking user feedback can help identify and rectify issues early in the development cycle.

- Documentation and Knowledge Sharing: Proper documentation of project details, processes, and outcomes is valuable for future reference and knowledge sharing. Creating comprehensive documentation, including user manuals, technical specifications, and lessons learned, facilitates smoother project transitions and supports future improvements.

- Continuous Improvement: Embracing a mindset of continuous improvement enables team-members to learn from project experiences and make enhancements in subsequent projects. Conducting post-project evaluations, identifying areas for improvement, and implementing lessons learned can lead to better future outcomes.
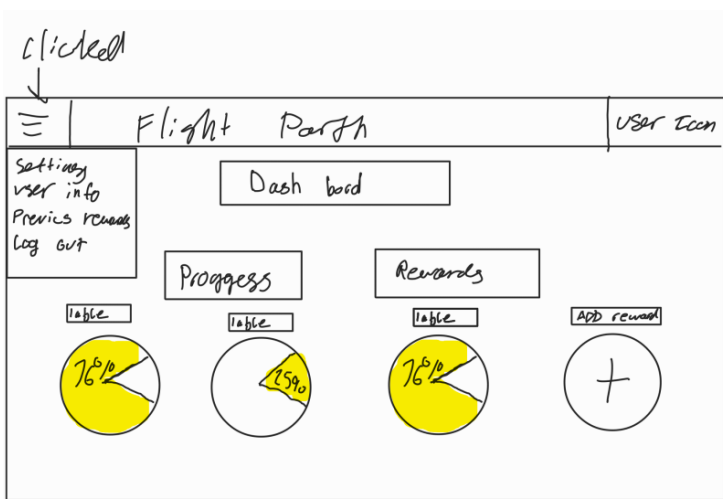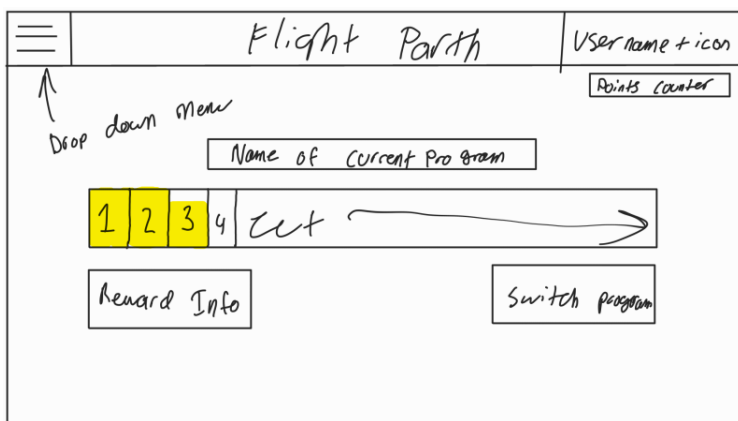
These lessons serve as valuable insights for refining project management practices, enhancing collaboration, and achieving better outcomes in future IT projects.

GITHUB VERSION CONTROL –
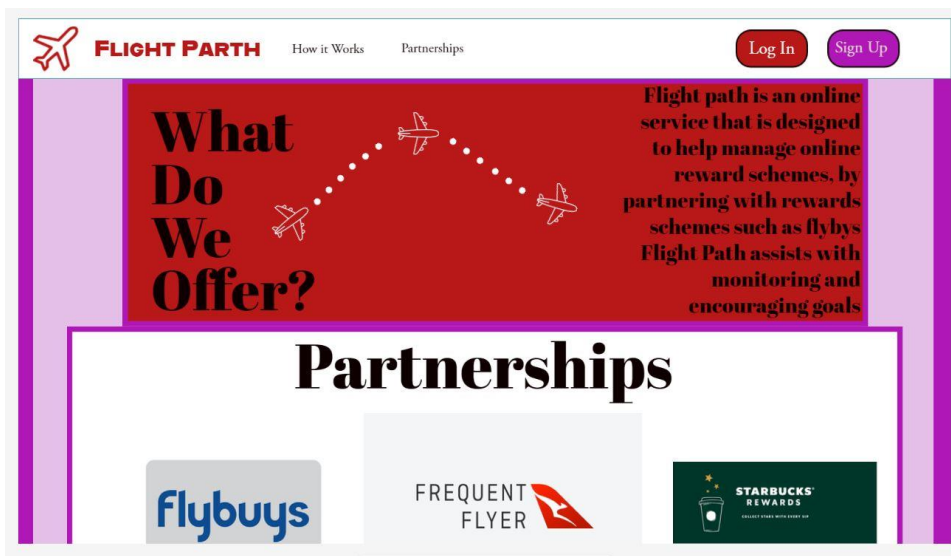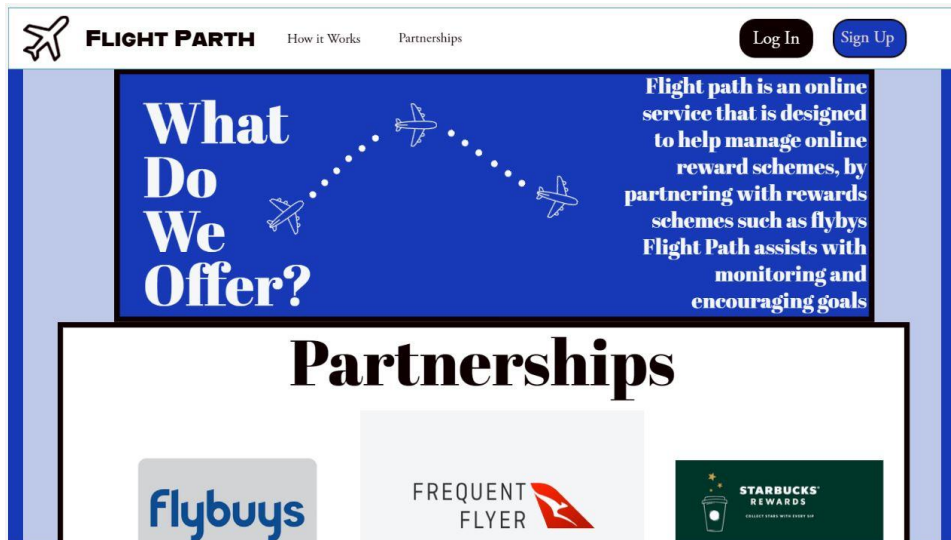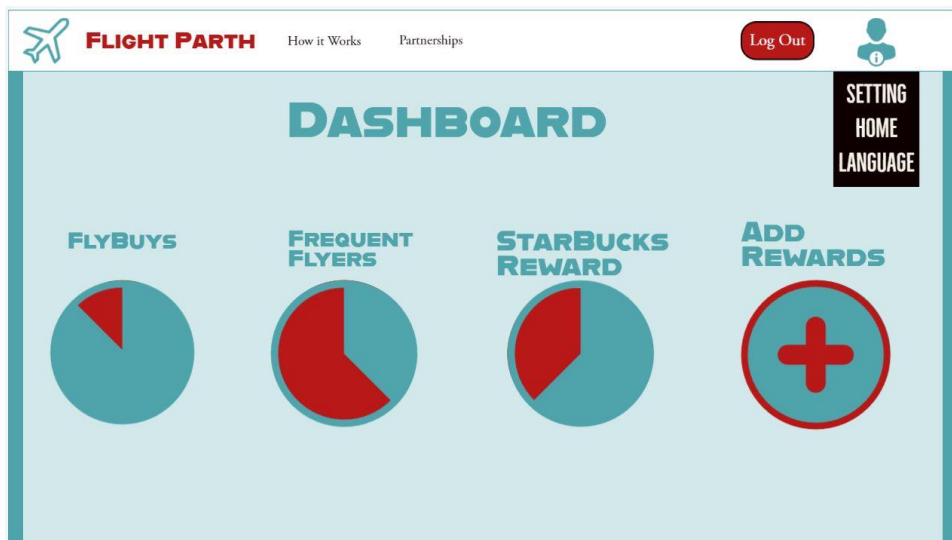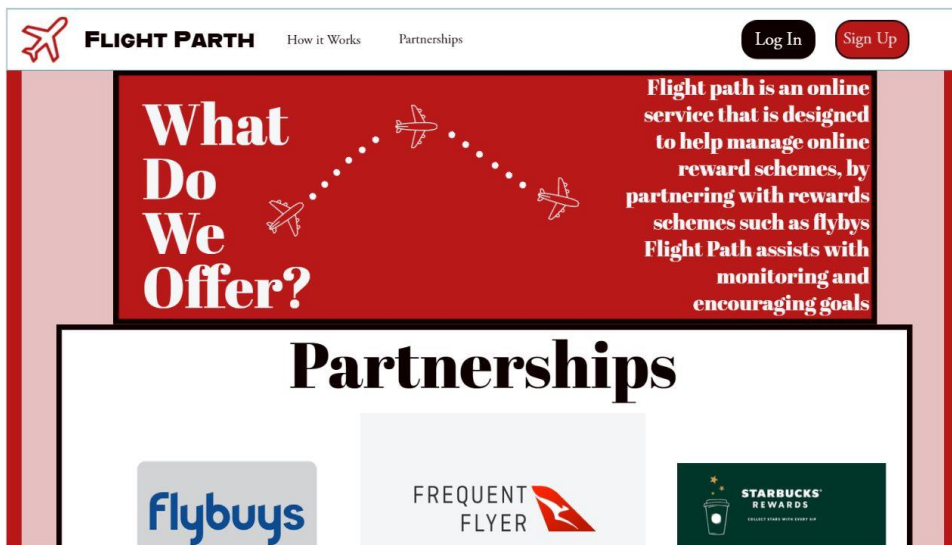
URL TO GITHUB VERSION CONTROL –

https://github.com/psiwox/Flightpath

PROTOTYPE SCREENSHOTS – LOW FIDELITY

Flight Parth — Username + icon

Points counter

↑
Drop down menu

Name of current program

| 1 | 2 | 3 | 4 | ut →

Reward Info   Switch program

---

clicked
↓

Flight Parth — User Icon

Settings
user info
Prevics rewards
Log out

Dash bord

Proggess   Rewards

Table   Table   Table   Add reward

76%   25%   76%   +

HIGH FIDELITY PROTOTYPE

FLIGHT PARTH   How it Works   Partnerships   Log In   Sign Up

What Do We Offer?

Flight path is an online service that is designed to help manage online reward schemes, by partnering with rewards schemes such as flybys Flight Path assists with monitoring and encouraging goals

Partnerships

flybuys   FREQUENT FLYER   STARBUCKS REWARDS

FLIGHT PARTH   How it Works   Partnerships   Log Out

DASHBOARD

SETTING
HOME
LANGUAGE

FLYBUYS   FREQUENT FLYERS   STARBUCKS REWARD   ADD REWARDS

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Partnerships

flybuys

FREQUENT FLYER

STARBUCKS REWARDS

FLIGHT PARTH   How it Works   Partnerships   Log Out

RUN WAY

FLYBUYS

60%

SOMETHING NEEDS TO GO HERE NOT SURE WHAT

10+

LESSONS LEARNT AND PROJECT CLOSING

- After completing an IT project over weeks, we as a group and individuals ourselves have reflected several lessons upon management and operation of an IT project.

- Planning and Scope: Adequate planning and defining the project scope are crucial. It's essential to have a clear understanding of project requirements, objectives, and deliverables before starting the project. This helps in setting realistic expectations and managing stakeholders' needs.

- Communication: Effective communication is key throughout the project. It's important to establish clear channels of communication and ensure regular updates are shared among team members and stakeholders. Timely and transparent communication helps in addressing issues, managing expectations, and maintaining alignment.

- Project Management: Strong project management practices contribute to project success. Utilising project management methodologies, tools, and techniques helps with organising tasks, setting milestones, monitoring progress, and mitigating risks. Adequate resource allocation and time management are crucial components.

- Collaboration and Teamwork: Encouraging collaboration and fostering a positive team environment promotes productivity and enhances project outcomes. Encouraging open communication, cooperation, and leveraging individual strengths can lead to better problem-solving and innovation.

- Risk Management: Identifying and managing risks throughout the project is vital. Conducting a thorough risk assessment, establishing contingency plans, and monitoring risks proactively can help minimise disruptions and ensure project success.

- Testing and Quality Assurance: Ensuring comprehensive testing and quality assurance measures are in place is important. Regularly testing functionality, conducting quality checks, and seeking user feedback can help identify and rectify issues early in the development cycle.

- Documentation and Knowledge Sharing: Proper documentation of project details, processes, and outcomes is valuable for future reference and knowledge sharing. Creating comprehensive documentation, including user manuals, technical specifications, and lessons learned, facilitates smoother project transitions and supports future improvements.

- Continuous Improvement: Embracing a mindset of continuous improvement enables team-members to learn from project experiences and make enhancements in subsequent projects. Conducting post-project evaluations, identifying areas for improvement, and implementing lessons learned can lead to better future outcomes.

These lessons serve as valuable insights for refining project management practices, enhancing collaboration, and achieving better outcomes in future IT projects.