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IT4201 IT PROJECT IDEATION

Task 2: Proposal Report

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Part 1: Ideation Summary

Section 1: Executive Summary

Financial awareness is necessary to achieve and maintain well-being among people in general, and young people in particular, in the current economy. To improve their capacity to make critical financial decisions, young individuals must acquire the necessary financial knowledge and skills. The modern young generation has been seen to put less emphasis on saving behaviours and money management, which may have a negative effect on their lives.

Brunei Darussalam has several resources available to help improve the country's financial literacy. For example, the Brunei government launched the Financial Literacy Education Programme which is designed to educate Bruneians about budgeting, saving and investing. Despite this, many young individuals are unprepared to manage their own finances and frequently have no plan for how to spend their money. In this case, they would benefit from setting financial goals. Thus, our target market consists of young college students from the age of 16 - 24 that receive allowance but also young working adults aged 25 - 35.

Our proposed system, Buddy, is a finance management mobile app. It aims to simplify financial management. Budgeting and knowing how much to save are both aspects of effective money management. Buddy provides a variety of services, including the ability for users to plan their finances by allocating a portion of their income or allowance to a specific savings category and tracking previous transactions. This allows our target market to achieve healthy spending and saving habits by being more intentional with their money because they're promoted to actively make decisions. These skills enable people to make better decisions and manage their money more responsibly.

Furthermore, Buddy will operate on the freemium business model which allows users to access both free and paid features such as the shared wallet. The company plans to rent an office at iCentre, which is a co-working space that offers capacity building programs, scalability, and funding options. The promotion strategy involves using social media platforms like Instagram and WhatsApp to connect with customers and encourage word-of-mouth marketing. Email marketing is also used as a personalised marketing tool.

Section 2: Product and Services

Buddy is a finance management mobile application that helps users with money management. As stated in [Section 1: Executive Summary](#), Buddy's target market is primarily made up of young individuals who are in the early stages of their financial journey and are looking for a tool to help them manage their finances more effectively. This includes young college students who may be receiving allowance and need to learn how to budget and manage their expenses, as well as young working adults who are beginning to earn their own income and require a budgeting tool to help them keep track of their finances.

The age range of 16 to 24 includes a wide range of people who are still in school or just starting out in their careers. These people are frequently inexperienced with money management and may require guidance and support as they learn how to budget, save, and manage their expenses. Buddy can assist them in setting financial goals, tracking their spending, and developing a budget that fits their lifestyle. Furthermore, the age range of 25 to 35 includes young working adults who are just starting out in their careers and may have more complex financial needs. Overall, they may be beginning to save for long-term goals such as a home down payment or retirement, and they require a tool to help them manage their expenses and stay on track with their savings goals. Buddy's target market consists of young people who are just starting out financially and are looking for a tool to help them manage their finances more effectively.

Buddy has five main features: a savings page, an expense tracker, an emergency fund, a shared wallet, and a personal wallet. Additionally, the system also offers a 52-week challenge as a sub-feature under emergency fund.

With the savings feature, the user can create customisable categories. After creating these categories, they can enter their target amount and track their progress. This motivates the user by dividing their money into smaller targets which are more easily achievable when saving up for a large purchase. This allows our users to direct their

money towards a specific goal, which helps them develop healthy saving habits. Once they've become accustomed to the habit, they can aim higher and increase the goal.

Creating a savings goal is only the first step. It's important for users to track their expenses to make sure they're sticking to their goals. It is essential for users to keep track of their expenses in order to stay on track with their goals. As a result, Buddy provides a feature in which users can enter their expenses into the application and view them as a line graph or pie chart. Furthermore, they can export it as a PDF but only if they have purchased the premium subscription service. By understanding what they spend money on and how much they spend allows them to see where their money is going and where they can cut back.

Buddy offers an emergency fund feature where the user can set an amount that will be deducted from their personal wallet into the emergency fund. Putting aside a sum of money in a systematic manner can help users prepare for unforeseen events. Having accumulated a certain amount of money for times in need gives users a peace of mind. With this feature, users are able to enjoy greater financial security. The 52-week challenge is an optional sub-feature within the main feature. The idea is similar to the main feature where users enter an amount of money that they are comfortable with, and the amount is deducted from their personal wallet. The amount accumulated from this challenge can only be accessed after 365 days; however, the premium subscription service allows the users to access the amount by the 26th week.

The shared wallet is a premium feature that allows a user to invite other users to manage their money together. Users can set and work towards savings goals, as well as track each other's spending. Any transaction can be added, edited, or deleted by the users. With this feature, users are able to gain better control of their spending as a team and as well as create short term and long term goals.

The personal wallet feature allows the user to insert their money into Buddy. With this feature, the user can view their balance and transfer their money from their personal

wallet into the other features of the application. Before making a transaction, the user must enter their NFC ID and the amount they wish to transfer. This feature also allows the user to cancel and edit their transactions before confirming their transactions.

Buddy will run on the freemium business model. With premium, users are offered the shared wallet as an additional feature. Furthermore, they are able to export their expenses as a pdf and access their accumulated amount from the 52 week challenge during the 26th week. Users will be given a free trial for 1 month and a week before the trial ends the user will get a reminder whether to take out their money from the shared wallet or proceed with the subscription. If they don't take out their money before the week ends then the system will return their money to the user's personal wallet. Premium subscription offers two choices: if they choose the monthly subscription they have to pay \$8 per month. However, if they choose the yearly subscription, they only have to pay \$72 annually.

Section 3: Market Research

3.1: Primary Research

An online survey was conducted that was created with Google Forms. It consists of 13 questions that are related to Buddy's main features. It was later distributed to intake 10, 11 and 12, of Politeknik Brunei via Outlook. With the total of 51 responses we are able to conclude that:

1. 92.2% of the respondents are aged from 18 - 25 years old. 3.9% of them are 26 - 35 and the remaining 4% are below 18 and above 35.
2. It shows that 86.3% are students, while the remaining 23.7% are either employed or unemployed.
3. It has been recorded that about 80.4% of these respondents have not used a budget app before. While the remaining 19.6% have.
4. Out of all of the respondents 70.6% of them have experienced difficulty in managing their money while the remaining 29.4% have not.

The respondents that are having problems in managing their money stated that most of them are not able to keep track with their balance which results in either overspending or accidentally using their savings. Some also said it's due to no self control, impulsive buying to satisfy their needs and unplanned events such as hanging out with friends.

5. Based on the question for the first feature, the saving page results shows that about a total of 76.5% of the respondents rate it 4 and 5, where 1 being the lowest and 5 the highest. All because they are able to see how convenient it is to help keep track of what users want to buy or save for while keeping it organised

despite having many goals they want to achieve. Another one of the respondents mentioned that from there they are able to see which of the categories they need to prioritise more. Not only that one also mentioned that it can save them time from writing it in their own notes. It is nice, knowing that you have a certain goal to collect money and if it shows how many percent we are in achieving the goal, it will be satisfactory.

6. For the question on the second feature which is the record expenses feature, 74.6% rated it 4 and 5 which means they are satisfied with this feature. As most respondents find this very useful to help and keep track of what they have spent their money on. Along with how much money they have spent on those things. Some find this more efficient instead of keeping track of what they spent their money manually.
7. As for the emergency funding feature 80.4% rated it 4 and 5, where 1 being the least satisfied and 5 being satisfactory. Most of the respondents find this convenient as it is able to prevent them from accidentally overusing their money. With this feature it can assure them that they have some savings that were already put aside.

Under the emergency funding exists a section called “52 Weeks Challenge”. Where the money that was set aside in this challenge is not accessible until the end of the challenge which is in 52 weeks that is equivalent to a year.

35.3% of the respondents are unsure and rated it 3 for this feature. One of the respondents mentioned, it is due to the difficulty of maintaining and completing the challenge along with the concern for not being able to access the money anytime unless it is complete. Especially when anything could happen anytime and needed the money urgently.

However, 62.7% rated it 4 and 5, this means they are satisfied. Then stated that this feature is beneficial for those who are not used to saving. In which this challenge can encourage and train them into saving money and managing their finances better. Before you know it you find yourself looking forward to the amount that you have saved up.

8. For the shared wallet feature 56.9% respondents find this feature useful especially when people are conducting a money collection. Including those who have roommates in their houses or apartments that need to split the bills. This can also help them avoid conflicts.
9. It has been recorded that a total of 86.3% respondents agree that the personal wallet is a useful feature but not satisfactory. One person brought up security and how secure it is, which makes them hesitant to use it, particularly because they will be entering their credit card details. Yet, some claim that it is a nice and useful feature to have.
10. As for the respondents' recommendation, one stated that it would be better if the system itself randomised the amount that is needed to be inserted when doing the 52 weeks challenge. Along with the recommendation on how much money they should save for each category aside from inputting the amount themselves. One also suggested making the theme of the app customisable when it comes to adding categories under the saving page. Another suggestion is to make the record expenses to be categories by months along with the date for when the money was deducted.

3.2: Secondary Research

Being able to adjust our money management habits will help us have better control of our finances and reduce stress. For the secondary research, published websites and applications with similar functions and features were chosen to compare to Buddy. For this report, YNAB¹, which stands for “You Need A Budget”, and Honeydue was chosen.

YNAB, a popular paid budgeting app that not only shows users what they have already spent, but also emphasises zero-based budgeting. This app teaches their users how to use their money, such as using their money for expenses, setting a budget, paying off debt, and saving money. The average YNAB user saves about \$600 in 2 months and \$6000 in their first year. Furthermore, this application has set their aims and goals to assist their users in managing their finances.

YNAB helps their users feel more organised about their finances. They educate them on better ways they can manage their money and give them an impression that money is no longer an issue. Aside from that it helps in becoming more financially stable, even with inconsistent income. This app benefits their users by encouraging them to designate each available dollar to a budget category before spending their money.

Some of YNAB’s main features:

1. Connect to your bank account. This feature allows users to link their accounts to have their transactions automatically imported, making tracking easier. It offers several methods for getting transactions into the user’s accounts, including direct import. Once the user’s account is linked, YNAB will import the day’s opening balance. However, if the user has any transactions cleared that day, they will be available to import shortly after. Transactions that cleared before the starting balance date will not be imported and as pending transactions clear, they will become available within 24 hours. This enables YNAB to show them their current

¹ You Need A Budget: <https://www.ynab.com/about-us/>

balance as well as uncleared transactions, preventing them from spending money that has already been spent.

2. Goal tracking. With this feature, the user can prioritise their spending and saving goals and track their progress in real time. In addition, the user can customise their budgets by editing, deleting, reordering and adding new categories to make their lives easier. Aside from that, the user will be able to track progress bars that represent how much they have budgeted and spent in each category. However, the user can toggle these bars on and off based on their preferences. With this feature, they will have a better visual representation of the progress on their budget and make it easy for them to keep track of available money in each category.
3. Loan calculator. It helps the user to find more money to pay off their loans. The user will have to add a loan account to their budget, where they must provide loan details such as nickname, account type (for example, auto loan), current account balance and interest rate, and monthly payment required. Then, YNAB will generate a simple lined graph to show a reasonable monthly payment that the user can make use of. This will display the time and interest remaining, giving the user the option to adjust the monthly goal to pay more instead of the forecasted goal, resulting in them paying off their loan sooner.
4. Spending and Net Worth Reports. This feature enables the user to see their spending trends. The user will be able to isolate and focus on the data that is important to them, as well as analyse their finances from several perspectives. The user will be able to view their overall spendings in a pie chart or their spending trends in a bar graph with a simple trendline that shows the data per month. Aside from that, there is a "total" section where the user can see a colour-coded pie chart showing their sending totals as a percentage of their overall money spent, where user can hover over each section of this chart to see

the amount spent for each category as well as the percentage of the total amount spent.

Aside from that, this app applies four rules. These rules are related to the aims and goals of the application. The first rule is to “give every dollar a job” which means that every dollar will be assigned a task rather than being meaningless. This helps their users in refraining from making any impulsive purchases. Rule two is “embrace your true expenses”, where users have to budget appropriately so that they have enough money to cover all of their expenses, whether they are daily or monthly. The third rule is to “roll with the punches”, which makes it easier for their user to recover from making a mistake. This means that if they overspend, it will not be a disadvantage to them because they have set aside extra money elsewhere where they can easily regain their money from. Lastly is “age your money”. This rule leans more towards disciplinary development. The user can go ahead and stop living paycheck to paycheck because after some time, they will be more ahead of themselves and be more aware of their money and spending.

However, unlike most budgeting apps that are published for free, YNAB is a paid application which starts off with a 34-day free trial. At the end of the free trial, users will be given the choice of selecting one of the available plans, monthly or yearly, and enter their payment method. Other than that, YNAB users have said that their interface might be overwhelming at first and the system takes a while to understand. Finally, it has limited features. Since it is a paid app, many have made comparisons to free budget applications and have said that it does not have as many features compared to those free.

Honeydue is another free personal finance management app, which helps couples track and manage their finances together. Honeydue is specifically designed to be used by a pair, with both users able to access the same dashboard through their own separate accounts.

Each partner creates an own Honeydue account. Then you can link your numerous credit cards and bank accounts, designating which ones belong to you, your partner, or both of you. Your transactions are picked up by the app which you both will be able to see. You can enter upcoming costs and specify who is accountable for paying them.

The transactions page has a beautiful appearance and is quickly understandable (navigated easily). According to category, each spending is colour-coded, and it is also noted whose partner purchased the item. You can use an emoji to respond to or comment on transactions. You can choose to make some transactions visible to you just if it all becomes too much for you. At your own risk, use this feature. Also,

Honeydue is a page specifically for your bills that will keep you organised and ensure you never forget to pay a bill. You can input payment due dates and choose which partner should get reminders. These deadlines are all neatly arranged in list and calendar format. To ensure you keep on target, the budget planning page includes graphs that show how spending and income in particular months compare to one another.

Some of its main features:

1. Bill reminders: To assist you avoid late fines or missing payments, Honeydue sends reminders for important dates. You can add your regular bills in the app along with the people who are in charge of paying them. Honeydue will notify you or your partner when it's time to pay, which should encourage you to pay your payments on time. Also, you may divide costs and conveniently keep a record of who owes what. You can enter all of your split expenses in an app similar to SplitWise, and it will calculate the overall sum to make it easier for you to settle up.
2. Joint account: Couples can connect their bank accounts, credit cards, and other financial accounts with Honeydue to view all of their finances in one spot. Other

perks are such as no monthly fees or minimum deposit requirements, custom notifications, real-time balance updates and modern budgeting tools.

3. Messaging: Now let us say you want to know more about a dubious transaction your partner engaged in. Instead of switching back and forth among your chat and personal financial applications in that situation, you can give your partner a direct message. Also, discussing individual costs via the app is far simpler than taking a snapshot from one account and texting it to someone. Talk about your mutual savings goal or your partner's odd spending pattern in the app, not in bed.

To summarise, there are a few features from both YNAB and Honeydue that will be available in the Buddy application. For example, as mentioned in the main features of YNAB, they provide a goal tracking feature which is similar to the savings page of the mobile application. According to YNAB's user, it teaches a new way to plan ahead on how the user will spend or save every dollar of their income. Honeydue, on the other hand, allows users to have a joint account which is similar to the shared wallet in Buddy. It makes it easier for partners to get an overall view of their finances together without having to log into multiple accounts, saving time and avoiding confusions. After thoroughly analysing the features of these existing applications, it is obvious that Buddy has enough features to satisfy their users, and it is certain that this application will be beneficial and used wisely by the locals. Overall, budget applications are best for people who enjoy keeping track of their money and keeping a close eye on their expenses.

Section 4: Market Size and Segmentation

Marketing is a crucial factor that businesses must consider rather than just selling their product. Because although it offers a good product or service, if there are not enough customers to buy it, the business will be unsuccessful. Therefore, in this section, we will thoroughly explain some predicted targets set and the expectation to be achieved when the Buddy application is released to the public.

In January 2023, it was reported that Brunei Darussalam's total population was 450.8 thousand, which increased by 3,625 from 2022.² With that information, Buddy's target customers within the first six months of publication are estimated to be between 300 and 500. After a year, its target customers will increase to around 1,000 to 3,000. It is because when a new application is first released, not many people will download it. There are different types of customers, such as those interested in trying something new and those who rely on reviews from existing customers. The number of customers will be predicted to rise after a year because it is likely that a user will recommend this application to their friends and family. However, after more than a year, more people are expected to download and utilise this mobile application, resulting in 10,000 or more downloads.

This mobile application is suitable for people of all genders and ages. However, it focuses more on its audience aged 18 to the mid 30s. It is because one of the features requires the user to insert money from their bank account into the application. In Brunei, an individual can only open a bank account if they are 18 or older. In this age category, university and college students and single young employed adults are the main target as they will need features such as the savings page for their car loans, meals, and other expenses. However, those above the stated age range are not prohibited from using this application.

² Brunei's population statistics: <https://datareportal.com/reports/digital-2023-brunei-darussalam>

According to the primary research conducted in [Section 3.1](#), Buddy's target users that are females between the ages of 18 and 25 are an impulsive spender. As they are always drawn to cute things that aren't really beneficial in the long term. While some always spend most of their money during unplanned outings with their friends. However, despite their inability to keep track of their money, they still like spending it on things they want, making it difficult for them to save. Not only that, it is estimated that about 70% of the target consumers in college dine out almost once a week. According to an article ³about The Spending Habits of Gen-Z, this group of people has become an important group of customers. This works in our favour as most of Buddy's target audience are Gen-Z and Buddy being a finance management application.

³ The Spending Habits Of Gen - z: <https://www.ncr.com/green-house/articles/connecting-to-gen-z#gen-z-spending-habits>

Section 5: Direct and Indirect Competitors

5.1: Direct Competitors

For this proposal, YNAB and Honeydue were chosen as Buddy's direct competitors.

YNAB is a popular budgeting app that was founded in 2004 and has the most devoted users of any budgeting app. The system is proactive thus, users are actively involved in establishing their goals, adding expenses and updating their budgets if necessary. The hands-on approach may help users save more money compared to other systems. Moreover, unlike most budgeting systems, YNAB encourages flexibility and teaches users how to plan for the unanticipated events. It's essentially a digital version of envelope budgeting that allows the user to handle extra things like debt repayment, credit card management, and long-term planning. Making a detailed money plan provides the user with clarity.

YNAB does have a few weaknesses. As aforementioned in [Section 3.2: Secondary Research](#), YNAB utilises a zero-based budget system. The most significant disadvantage of zero-based budgeting is that it is very time-consuming to plan. This approach is a longer process than the traditional way of budgeting thus, consistent disciplined interaction is required to fully benefit from the YNAB budgeting philosophy. Furthermore, YNAB lacks a bill reminder feature, which may be inconvenient for some users. It can be difficult for users to keep track of multiple due dates. Additionally, after the free 34-day trial period, there is no free version of YNAB. Users can choose between paying \$8.25 a month or \$99 a year, which can seem pricey, especially for those trying to save their money.

Buddy offers a shared wallet feature and Honeydue was chosen as a direct competitor due to its couples-focused approach. Within the app, the users can both check current balances, set a spending limit on budget categories and more. Moreover, Honeydue also has a bill payment reminder feature that allows users to set a date for when a bill is

due in each category. This feature is useful for users to stay in track of their due dates, and it does not require users to check the application on a regular basis. Moreover, unlike YNAB, Honeydue is completely free to download and use. However, there are in-app ads that the users have to go through, which is common with free apps.

While the app offers a budget section, Honeydue does not offer tools catered toward financial goals such as savings. This means that the users can limit their spending however it does not encourage them to save up. Moreover, Honeydue does not prompt the user to assign your money before it's spent which means users will have to plan out their monthly budget ahead of time for the best results.

5.2: Indirect Competitors

The indirect rival of Buddy would be TAIB. On September 29, 1991, TAIB was created and formally launched.

TAIB's establishment represented a fresh beginning for Brunei Darussalam because it was the nation's first official financial organisation to carry out all of its operations in line with Islamic law. TAIB was picked as the indirect rival because they provide platinum banking services, corporate financing products, and savings deposit and term deposit accounts. As previously mentioned, one of the things they provide is savings services, for which they have eight different kinds of savings accounts.

For those under the age of 18, there are SiManja Savings Accounts, which are held by the minor's parent(s) or guardian until they turn 18, and for those who are above the age of 18, there is the personal Al-Wadiah Savings Account. Only Muslims may use the Tekad Haji Savings Account, which enables the depositor to save money in order to fulfil their desire to perform the Haj. The additional savings accounts include Berjasa, Medical and Health Saver, Property, Education, Retirement, and Akaun Syarikat.

The services' weaknesses include the requirement that users or depositors make deposits between \$50 and \$100, the requirement that savings accounts be kept in separate accounts rather than under one account, and Buddy's promise that all savings will be kept in one account but divided into various categories. In addition, TAIB specifies other documentation requirements for Brunei citizens, permanent residents, and foreign nationals. For foreign citizens, additional documents required include their identification card, valid passport, employment pass, letter of employment, satisfactory proof of a residence in Brunei, such as a rental agreement, and a tax certification form. Brunei citizens only need their original, valid identification cards.

Regardless of whether it was a local or foreign citizen, Buddy wouldn't need much of a qualification. All users would find using Buddy to be less of a hassle and more appealing. Buddy would not demand any deposit in order for people to safeguard their accounts, in contrast to TAIB, which required depositors to deposit \$50 or \$100 to do so, as Buddy is an app that enables all users to save money.

Section 6: Market Force

6.1: Politic

Copyright and related rights are automatically protected without the need for registration or other formalities. Unlike other types of intellectual property, such as trademarks, patents, or industrial designs, which must be registered for protection, copyright and related rights are unique in that they are automatically protected the moment you create a work. Therefore, there are no additional fees for copyright when Buddy is implemented. Moreover, Buddy will be protected in other countries that are members of the World Trade Organization (WTO) or the Berne Convention for the Protection of Literary and Artistic Works, commonly referred to as the Berne Convention. Furthermore, the current oversight of the system is more of prudential objective which is to ensure the soundness of the individual financial institutions. The users are basically self-regulated.

6.2: Economic

Understanding economic factors, alongside consumer habits, enables companies to strategise marketing and spending activities better. This knowledge can lead to a more substantial return on investment as companies can set prices and advertise to their target audience based on customer needs and economic status. Many factors contribute to economic development. Thus, by studying these elements, they can better predict consumer spending, organise their decision-making, secure the company's well-being, and plan their marketing efforts to improve performance.

In addition, the average allowance received by students in Brunei, for example students of Politeknik Brunei, is about \$348 per month. However, even with the amount of money they received, some of them still struggle to properly manage their money, resulting in little money remaining or low balance due to overspending.

Having said that, these students can make use of the Buddy application to assist their way of living. Moreover, it will also be affected by the economy in terms of their interest in the application, which may have an impact on the company's growth. As a company that creates a service for customers to use, it depends not only on its production costs but also on the number of downloads from customers.

As a result, setting a target audience will help to estimate the average number of downloads expected for this application. Moreover, it also helps in the application's design scheme, development, and marketing strategies. The application will be designed to match its target audience, particularly in terms of feasibility, to ensure they are comfortable using it.

6.3: Social

Social factors can have an impact on the development of the application or businesses in general, either positively or negatively.

Consumer behaviour is one of the social factors that can influence which product to produce. However, this factor will also reflect on the rate of population growth; the more people we have, the more people can provide feedback. This will have a greater impact on understanding the user's wants and needs, which will aid in decision making.

Buddy's target users are students who receive allowances and are over the age of 18. As a result, Buddy must consider their ageing target users. Specifically, according to research, 66% of Gen Z spend the majority of their time using smartphone apps.⁴ As a result, the older generation will most likely struggle to adapt to using the app.

⁴ The Spending Habits Of Gen - z: <https://www.ncr.com/green-house/articles/connecting-to-gen-z#gen-z-spending-habits>

6.4: Technology

The technological environment concentrates on technological advancements in a field. Businesses are substantially impacted by technological aspects since technology has a huge effect on how companies operate. The gap between buyers and sellers has been significantly narrowed thanks to technology.

The ability to use mobile devices is one of the technological aspects. It is crucial to make sure our budgeting application is mobile-friendly and compatible, given the rising popularity of smartphones and tablets. A budgeting application's scalability and flexibility can also be increased by using cloud-based computing, which can also assist with data management, analysis, and storage while giving users access to real-time data and insights.

The security and privacy of data are also important factors. It is crucial to make sure that the application complies with data privacy and security laws and standards to secure users' personal information because sensitive financial data is saved and transmitted within the app. Moreover, this budgeting application must be updated and improved on a constant basis to be competitive and satisfy shifting customer wants and preferences. This cannot be overlooked as technology continues to advance.

6.5: Environment

It was decided to introduce a different method of receiving an invoice online rather than on paper in order to reduce the use of paper for the bank statement. Consequently, e-statement is more reliable and sustainable. Since e-statements are delivered considerably faster than paper and may provide users with the most recent information on their account balance and transactions, using them can help users lower their carbon footprint and contribute to a more sustainable future.

E-Statement or electronic statement is a digital document that details a customer's financial transactions with a specific institution, such as a bank or credit card company.

Because they are maintained online behind password-protected accounts and are encrypted, electronic statements are more secure than paper statements. As a result, information theft is more difficult. The user's bank's online banking interface often stores e-statements digitally, making it simple to maintain and organise the financial records. Users can set up notifications to tell them when certain transactions take place or when their statements become accessible.

6.6: Law

Businesses must follow the laws that exist in society or face the consequences of breaking them, which include heavy penalties. As a result, legal factors have a significant impact on business operations.

As users are entering their financial information into the app, Buddy is concerned about the consumer protection law. Therefore buddy at all cost must protect that data or risk facing costly fines for breaking consumer protection rules.

Furthermore, Section 44 of AMBD Order, 2010 provides the Autoriti Monetari Brunei Darussalam (AMBD) with the authority to have oversight and supervise the payment and settlement system (PSS).

The Competition Order 2015⁵ prohibits three anti-competitive behaviours :

1. Anti-Competitive agreements section 11
2. Abuse Of Dominant Position section 21
3. Anti-Competitive Mergers section 23

⁵ The Competition Order 2015: <https://deps.mofe.gov.bn/DEPD%20Documents%20Library/KH/competition%20order/F.pdf>

Section 11 of the Competition Order 2015 prohibits agreements between enterprises in Brunei Darussalam that have the intention and effect of limiting, preventing, distorting, or restricting competition. This applies regardless of how the agreement was reached or whether the agreement is entered either within or outside of Brunei Darussalam.

Being dominant in a market is not a crime. The Competition Order 2015's Section 21 prohibits enterprises with a significant amount of market power from abusing their dominant position by engaging in actions that would discourage or make it more difficult for rival companies to compete in the market. This includes practices such as charging different rates or conditions to clients without explanation, exclusive transactions, refusing to supply, and predatory pricing.

Under the 2015 Competition Order, mergers do not always cause competition issues. Only mergers that significantly lower or limit competition in Brunei Darussalam are prohibited by Section 23 of the Order.

Section 7: SWOT Analysis

7.1: Strength

One of the application's strengths is the ability to track multiple accounts and record all transactions in real time. This allows customers to regularly examine their account balances and expenses, which can help them manage their money and make better decisions. This real-time data can also be useful for pinpointing areas where users might raise their savings or reduce their consumption. Another strength is this application is offering a shared wallet feature, allowing the users to manage their budget together with someone else they choose to share it with such as their spouse to handle their house expenses together or managing their budget during travelling with their friends as this application can also use different currencies.

This application also allows the users to customise categories that suit each user's unique requirements. Users can, for instance, set spending caps for various categories, make their own reports, and get notifications for particular kinds of transactions. By being customised, the software may be able to assist users in reaching their financial objectives more successfully. Additionally, our application has an option for the users to have emergency funding where they can put aside some amount of money accordingly and the money can be used readily for any desperate situations.

7.2: Weakness

One of the weaknesses of budgeting apps is that they rely heavily on user input. For the app to work effectively, users need to manually input their expenses, income, and other financial information. This can be time-consuming and tedious for some users, leading to a lack of motivation to continue using the app. Another concern is that users who need in-depth financial research may not be able to use this application. While Buddy offers a basic overview of spending and saving patterns, it might be unable to give precise information about advanced financial tools or investment portfolios.

In addition to that, budgeting apps may be vulnerable to security flaws or theft of information. There is a chance of illegal access or data theft because the app stores private financial information. Users may suffer severe consequences as a result, such as theft of identities or money laundering. Furthermore, it might not be a practical tool for those who prefer to pay with cash as their main way of payment. For instance, if someone uses cash to purchase groceries, the transaction won't appear in the budgeting app until they manually enter it. If a person spends a lot of time using currency throughout the day, this may not be realistic.

7.3: Opportunities

As mentioned in [Section 3.1: Primary Research](#), 80.4% of the respondents claimed to have never used a budgeting application. Aside from that, 70.6% of them have had trouble managing their money. Several respondents have provided positive feedback on the Buddy application's features. With that, Buddy and its features will meet customers' demands by making budget plans more accessible via mobile phones.

Several financial education programmes, such as the Financial Awareness Roadshow in February 2023 and UBD's Financial Literacy Talk in March 2023, have been conducted by the Brunei Government, organisations, and schools to enhance financial knowledge among the public. Aside from that, the Ministry of Finance and Economy has taken an active role by presenting several financial planning talks to the public, focusing on retirement savings. With that, this proposed idea can be presented to them to educate their consumers about the importance of saving and managing their money and help them plan their future savings with our Emergency Financing.

Furthermore, by promoting this application on commonly used social media, such as Instagram and Tiktok, the mobile application will reach a larger audience in Brunei's population. Thus, more people will be interested in our mobile application leading to a high number of downloads. Sales and business will grow over time, and Buddy will

eventually gain full recognition. Aside from that, as stated before, one of the benefits of this application is to help their customers in developing healthier saving habits. As a result, this mobile application can educate customers on the significance of managing their money to avoid difficulties.

7.4: Threats

As other budgeting are already successful and have been available for years, they have gained customer loyalty. It may be difficult for Buddy to gain customers that will trust them, especially those currently using other budgeting applications. Some may believe switching applications would be a waste of time, especially when they must reset the information and restart from scratch. As a result, it may be difficult for Buddy to stand out as it is not a unique mobile application.

Data is frequently exchanged between the server and the client in a mobile application. When the app sends data, it uses the internet and the provider's network on the mobile device. Intruders potentially utilise mobile security flaws to intercept sensitive data or user information as it travels over the network. Since Buddy is new, the security might be weak, allowing cyber attacks into the application.

With the features they provide, Buddy users will get a clear perspective of their earnings, especially those paid monthly. Its users may feel insecure about their job if they believe the money they receive is insufficient to cover their expenses and savings. Although it may encourage younger Buddy users to look for a better job, it may discourage senior Buddy users or those who have been working for a longer time. They may assume that looking for a better job at their age is hard and that they are stuck with low-paying occupations, which demotivates them.

Section 8: Market Strategy

8.1: Product

This product is a budgeting application for which its purpose is to keep track of one's spending of their salaries or allowances. This application offers some features which will enhance users' experience with this application. Users of this program will be able to keep track of their expenses and examine them as line graphs or pie charts to better understand their spending patterns. The report may be downloaded as a pdf file. Users have the option of adding their own custom categories to their savings accounts or letting the application help them with it automatically in addition to keeping track of spending.

Furthermore, this application also enables users to set aside money from their regular budgets as an emergency fund, which can be used in times of demand. Another strong point of this application is the shared wallet function where users are able to manage their budget with their partners or friends. Alongside that, users will be able to use a Near Field Communication (NFC) card, where this card holds their money in Buddy which will allow users to use their money with ease that any transaction made with the card, their expenses will be automatically recorded.

8.2: Price

Buddy will operate on a freemium business model, providing users with both free and paid features. The app offers numerous features that help users track their expenses and manage their finances effectively. The premium version of the app offers some additional features such as a shared wallet, the ability to export expenses into a PDF format and the option to access money saved for the 52 week challenge on the 26th week. These premium features are available for a subscription fee of \$8 per month, or users can opt to pay a discounted annual fee of \$72, making it a cost-effective choice for those who want to unlock additional features. The shared wallet feature enables users to manage expenses with friends or family members, while the PDF export

feature is helpful for creating detailed reports of expenses. Additionally, the 52 week challenge feature encourages users to save money over time, and the ability to access the saved money on the 26th week is a great incentive to stay on track.

8.3: Place

For a startup business, we have decided to rent an office at iCentre. The iCentre Incubation Programme is a one-year incubation program by DARE and co-working space with access to capacity building programs, scalability, and funding options for existing and aspiring entrepreneurs that is located at Simpang 32-37, Kg Anggerek Desa, Jalan Berakas BB3713, Bandar Seri Begawan, Negara Brunei Darussalam. The rental of the first year will be waived and fully subsidised by DARE and we will only be charged on the second year subject to iCentre renewal application form and assessment from DARE. Rental will be based on the square feet, so it is estimated the cost of the rental office of our choice will be about \$300 per month. Taking into account how the new norm is to be able to do things at the tips of their fingers, Buddy adjusted to this change and made the application where it is easily accessible at any time and anywhere as long as they have their own data.

8.4: Promotion

Buddy's promotion strategy will be to connect with users and promote new features and content via social media platforms such as Instagram and WhatsApp. One advantage of social media is that it allows us to communicate directly with our audience, allowing customers to interact with our brand in real time. Buddy can build trust with potential customers by engaging on social media. Buddy will also rely on word-of-mouth as a marketing strategy and encourage its users to share the application with their friends and followers on social media. This helps to broaden the service's reach and introduce it to new users.

In addition, email is used as a personalised marketing tool to connect with users. Since our marketing list will be made up of people who have proactively chosen to receive

email communications from Buddy, customers who are interested in our services are more likely to engage. In addition, since there are no expenses for printing or media space, email marketing costs are less than those of other forms of marketing.

Section 9: Financial Strategy

9.1: Start-up Cost

Start-up costs are the costs associated with launching a business, in this case, launching an application for Buddy.

Fixed assets

Fixed assets are the long-term assets that a business has purchased and used for production for applications and also the services offered.

EXPENSES	CALCULATION	ESTIMATED COSTS (BND)
Launch to app store	A one-time fee on Google Play - \$33	\$33
Hardware	<ul style="list-style-type: none">• Laptop maintenance \$100• NFC RFID Contactless Smartcard Reader \$0• Canon Pixma MG2570S printer \$100	\$200
Application features	Depending on the complexity \$200	\$200
	TOTAL	\$433

Table 1: Fixed Assets

Intangible assets

These assets are assets that are not physical in nature.

EXPENSES	ESTIMATED COSTS
Figma	\$0
Canva	\$0
Android studio	\$0
Discord	\$0
SQL database	\$0

Google drive	\$0
TOTAL	\$0

Table 2: Intangible Assets

9.2: Running Cost

On average, running costs are calculated monthly. It consists of all of the stocks plus any operating costs. This includes total budget spend on employee salary, marketing, Wi-Fi, and office rent.

EXPENSES	CALCULATION	Estimated costs / monthly
Employee salary	\$600 x 5	\$3,000
Marketing	Leaflets \$20 Social media per month \$100	\$120
Office rent		\$350
TOTAL		\$3,470

Table 3: Running Costs

9.3: Break-even Analysis

a) Fixed costs for 1 month

DESCRIPTION	COST
Employee salary	\$3,000
Marketing	\$435
Office rent	\$300
TOTAL FIXED COSTS:	\$3,470

Table 4: Fixed Assets

b) Variable expenses (per unit):

DESCRIPTION	COST
None	\$0
TOTAL VARIABLE COSTS:	\$0

Table 5: Variable Expenses

c) Revenue (per unit):

Buddy is expected to charge \$8 for the monthly subscription and \$72 for the yearly subscription. Additionally, Buddy is expected to have at least 300~500 in the first 6 months and around 1000~3000 after a year.

Formula used:

Break-even point = fixed costs / contribution margin (sales price - cost price)

Monthly subscription:

Break-even point = \$3,470/ \$8 per month
= 433.75 subscribers per month (\approx 434 users)

Amount of subscribers needed to reach the break-even point:

500 users/ 6 months = 83.3 users per month (\approx 83 users)

434 - 83 = 351

Hence, Buddy needs 351 monthly subscribers to break-even.

Yearly subscription:

Annual sales price per month = \$72/ 12 months = \$6 per month

Break-even point = \$3,470/ \$6 per month
= 578.3 subscribers per year (\approx 578 users)

Buddy exceeds the break-even point because it is expected to have 1000 ~ 3000 users after a year.

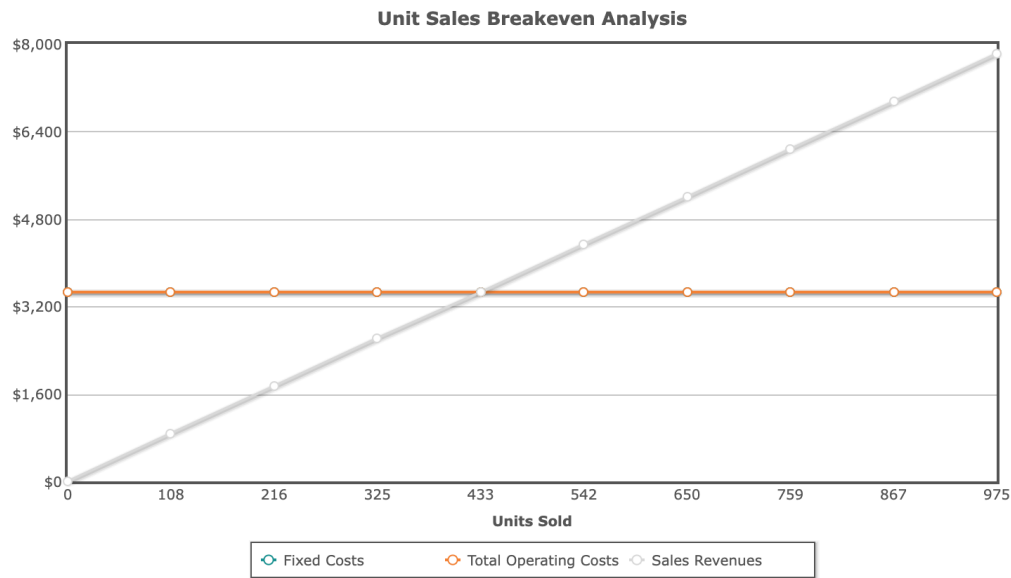


Figure 9.3.1: Break-even Point Graph for Monthly Subscribers

No. of Expected Subscribers	Profit	Revenue	Variable Costs	Fixed Costs (per month)	Total Expenses
100	-\$2,670	\$800	\$0	\$3,470	\$3,470
150	-\$2,270	\$1,200	\$0	\$3,470	\$3,470
200	-\$1,870	\$1,600	\$0	\$3,470	\$3,470
250	-\$2,000	\$2,000	\$0	\$3,470	\$3,470
300	-\$1,070	\$2,400	\$0	\$3,470	\$3,470
350	-\$670	\$2,800	\$0	\$3,470	\$3,470
400	-\$270	\$3,200	\$0	\$3,470	\$3,470
450	\$130	\$3,600	\$0	\$3,470	\$3,470
500	\$530	\$4,000	\$0	\$3,470	\$3,470

Table 6: Table for Break-even Point of Sales (Monthly Subscribers)

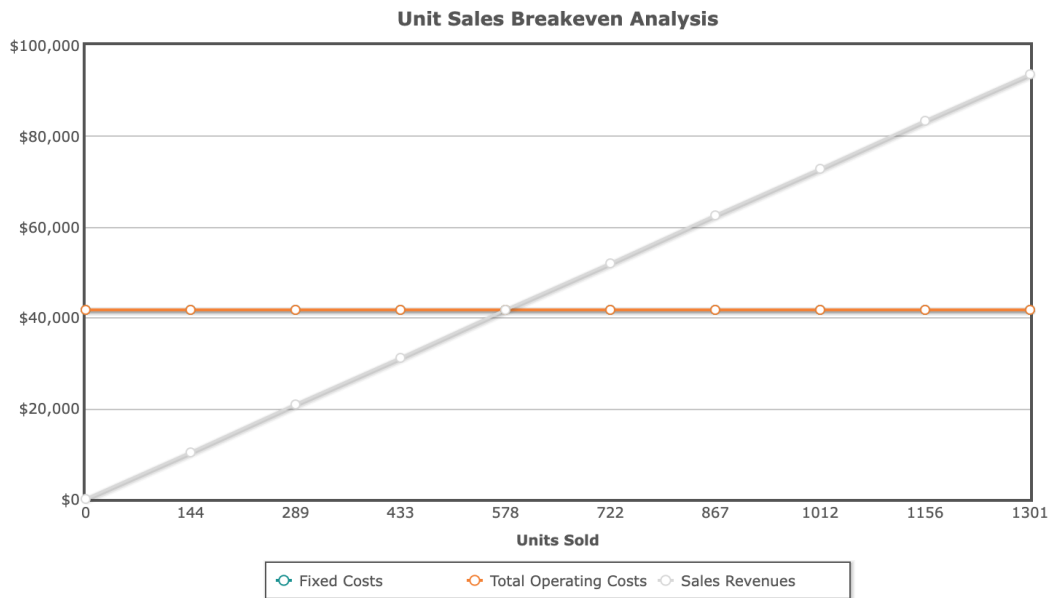


Figure 9.3.1: Break-even Point Graph for Yearly Subscribers

No. of Expected Subscribers	Profit	Revenue	Variable Costs	Fixed Costs (per year)	Total Expenses
1000	\$30,360	\$72,000	\$0	\$41,640	\$41,640
1500	\$66,360	\$108,000	\$0	\$41,640	\$41,640
2000	\$102,360	\$144,000	\$0	\$41,640	\$41,640
2500	\$138,360	\$180,000	\$0	\$41,640	\$41,640
3000	\$174,360	\$216,000	\$0	\$41,640	\$41,640
3500	\$210,360	\$252,000	\$0	\$41,640	\$41,640
4000	\$246,360	\$288,000	\$0	\$41,640	\$41,640
4500	\$282,360	\$324,000	\$0	\$41,640	\$41,640

Table 7: Table for Break-even Point of Sales (Yearly Subscribers)

Part 2: Functional Specification

Section 10: Functional Requirements

LOGIN
<p>When a user enters the application, there will be a login form for users who already have an existing account. They are required to enter their email and password to log in. Although their password will be obscured with an asterisk, the user can reveal it by clicking the password reveal button. After clicking the confirm login button, the user will be redirected to Buddy's homepage where they can explore the application's features without restrictions. In addition, there is also a "Forgot password?" link which will redirect the user to a page where the user can reset their password in case they forget their current password.</p>

SIGNUP
<p>On the login page, there is a sign up option for users who do not have an account. New users are required to register by providing their personal information, including their name, password, email, and phone number. The Buddy system will then send a verification code to the user's phone number. In case of any issues with the verification code, users can choose to resend it to their email. Once the verification process is complete, users will be redirected to the login page to log in to their account.</p>

FORGET PASSWORD

This feature allows the user to reset their password, where they are required to enter their email or phone number. The system will then send a verification code to the selected option, which the user must input in the designated field. Similarly, if the user is having any issues, they have the option to resend the code. Once verified, they will be redirected to a page, which requires them to enter a new password and re-enter it. Both entries must match in order for the process to be successful.

HOME PAGE

After logging in, the user will be first redirected to the homepage. In this page, it will show the balance of the user's personal wallet, the graph for weekly expenses, and top 3 savings. Aside from that, there are 3 hyperlinks the user can click on:

- If the user clicks on 'View Wallet', they will be redirected to the personal wallet page,
- If the user clicks on 'View Expenses', they will be redirected to the record expenses page,
- If the user clicks on 'View Savings', they will be redirected to the savings page.

SAVINGS PAGE

On this page, the user can personalise categories according to their savings goals and objectives. They are required to provide details for the category they create, including its name and set the target amount. The user will insert money into these categories from the personal wallet. A notification will be sent once the money has been successfully inserted into the category. When a category reaches its target, Buddy automatically marks the goal as complete. Moreover, they can also modify and delete any of the categories they have made if they wish to. If the user opts to delete a category, the system should be capable of returning the money assigned to that category back to the user's personal wallet.

RECORD EXPENSES

This feature gives the user the ability to capture and record their expenses, helping them to keep track of their spendings and monitor their overall financial status. Furthermore, if any money is deducted while using their NFC card Buddy notify them and will automatically record their recent expense. Buddy also provides useful visualisation which displays their expenses in the form of histogram graph. Moreover, the user can choose to generate a PDF report of their expenses that will be sent via Email. Which is only available if the user decides to purchase the premium subscription service.

EMERGENCY FUNDING

Emergency funding assists to set aside a certain amount of money where it falls under no category, which can be taken out at any time depending on the user. Similar to the savings page, Buddy requires the user to transfer money into this feature from the personal wallet. Once the transfer is successful, Buddy will send a notification to inform the user that their money has been added. In addition, it also provides the option for users to take out their money whenever they wish to.

52 WEEKS CHALLENGE

This is a feature within Emergency Funding that allows users to withdraw their money only after the 52 weeks have ended. Each week, Buddy's system will generate a randomised number between the range of \$1 up to \$52. This feature will only allow the user to transfer the corresponding amount of the money each week. Similarly, Buddy will send a notification to inform the user that their money has been added into this feature. However, if the user decides to purchase the premium subscription service, they are able to access the amount saved within the 26th week.

SHARED WALLET

Shared wallet is a premium feature that allows Buddy users to create a group, where they can add or remove member(s) at any time. Upon creating a group, a unique invite link will be generated for others to join. Each group can have a maximum of 5 accounts. Similar to the savings page, the users can customise saving categories where they will have to include the name of the category as well as the amount. In addition, the Buddy system will also allow the users to record their expenses, providing an overview of the group's financial activities.

PERSONAL WALLET

In this page, users will be able to view their balance and add money into the application. To insert money, the user must input their NFC ID and a one time pin (OTP) will be sent via SMS . After providing these details, users will have to specify the desired amount to transfer. Before proceeding, the user has the choice to cancel or proceed, as well as edit their details before proceeding.

USER PROFILE

The user profile page displays the user's profile picture, name, and email, along with buttons for accessing their account details, change password, personal wallet, settings and log out. By clicking on the user's account button, they can modify their personal details such as their profile picture, name, email and phone number. The password will enable the user to change their current password into a new password. As for the personal wallet button, it is one way for the user to go to their personal wallet page. The user will also be able to view the application's setting which will redirect them to the setting page. Lastly, the user can find the log out button for users who wish to log out of Buddy.

LOGOUT

To log out of the application, the user can click on the logout button which can be found on their profile page. The application will display a pop up asking if the user is sure they want to log out. Once confirmed, the user will be redirected to the main page, which is the login page.

Section 11: Use-Case Diagram

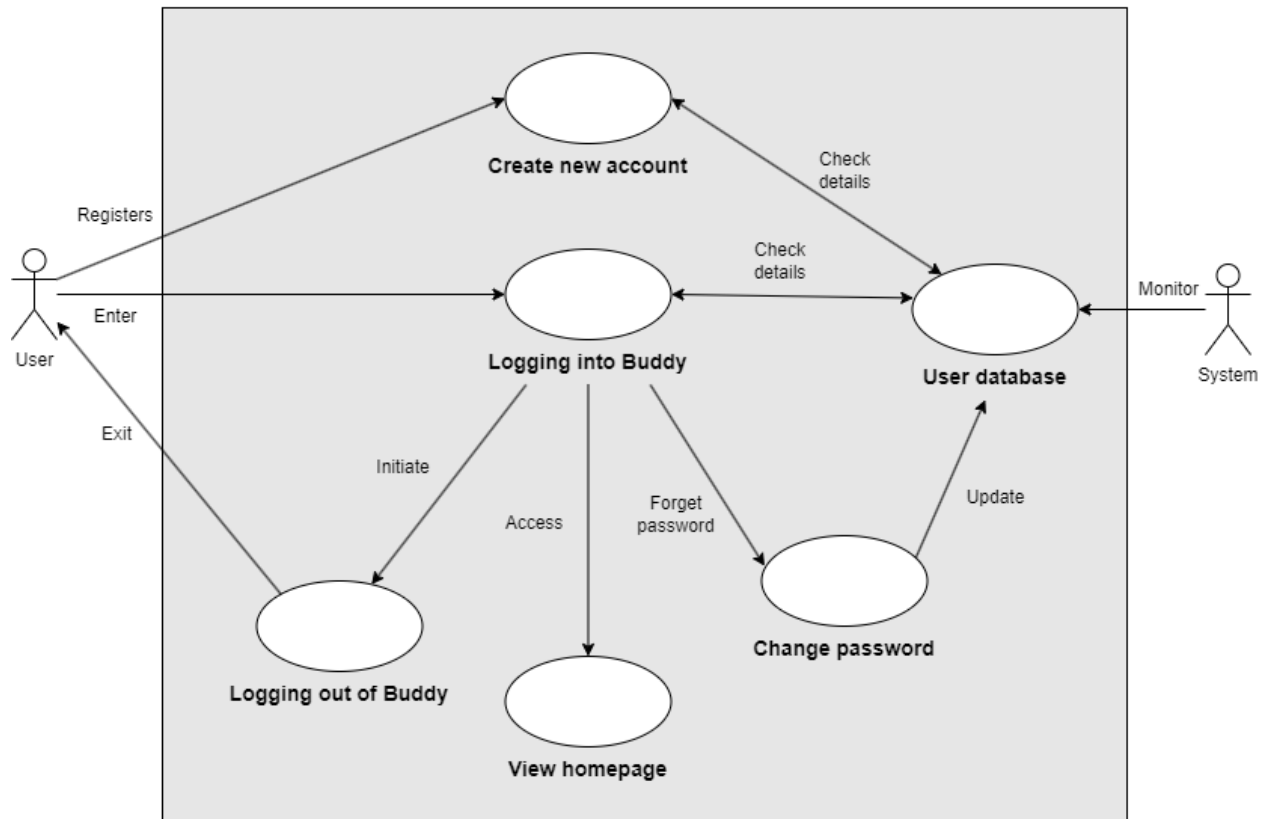


Figure 11.1: Use-Case Diagram for Authentication

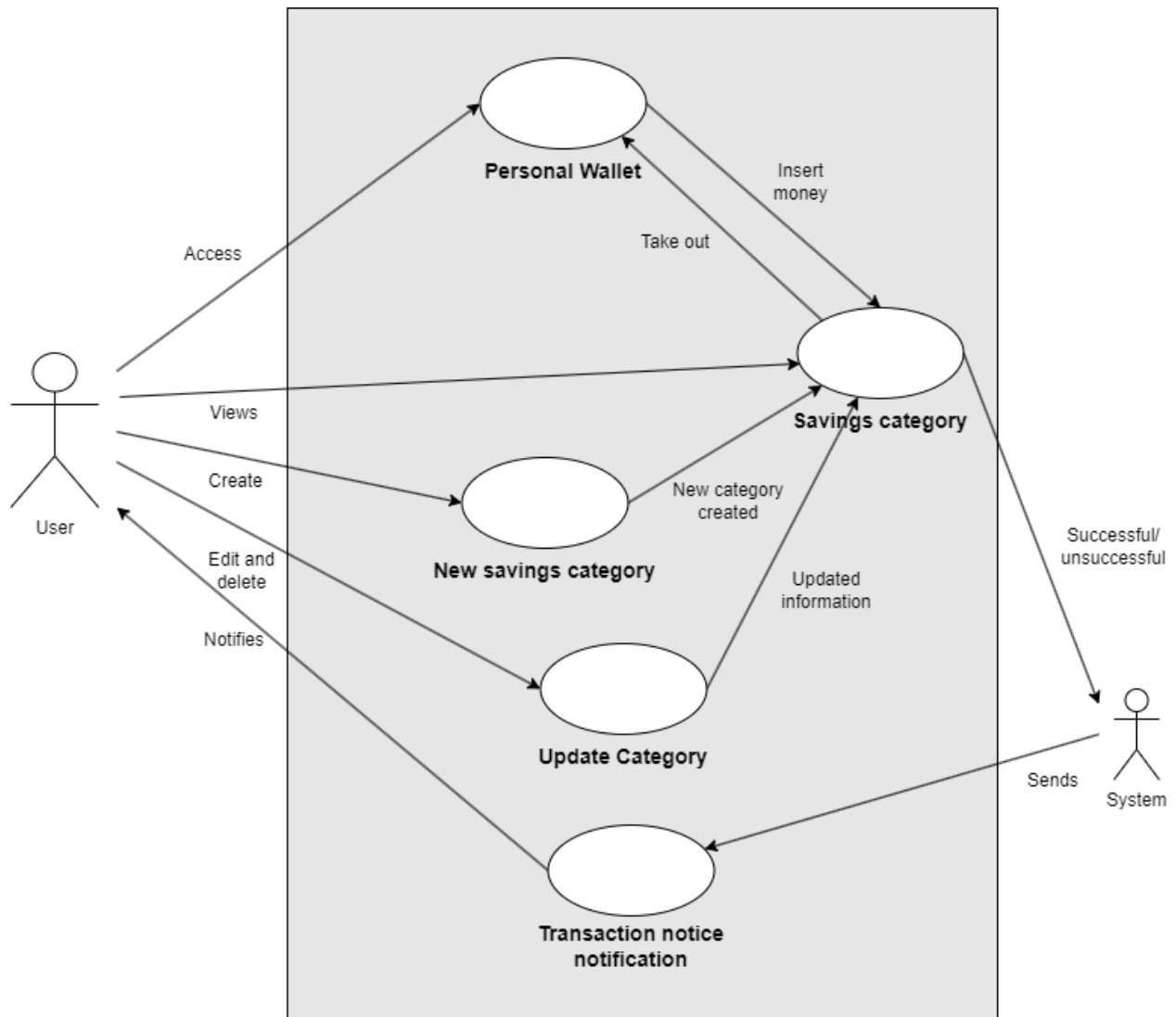


Figure 11.2: Use-Case Diagram for Savings

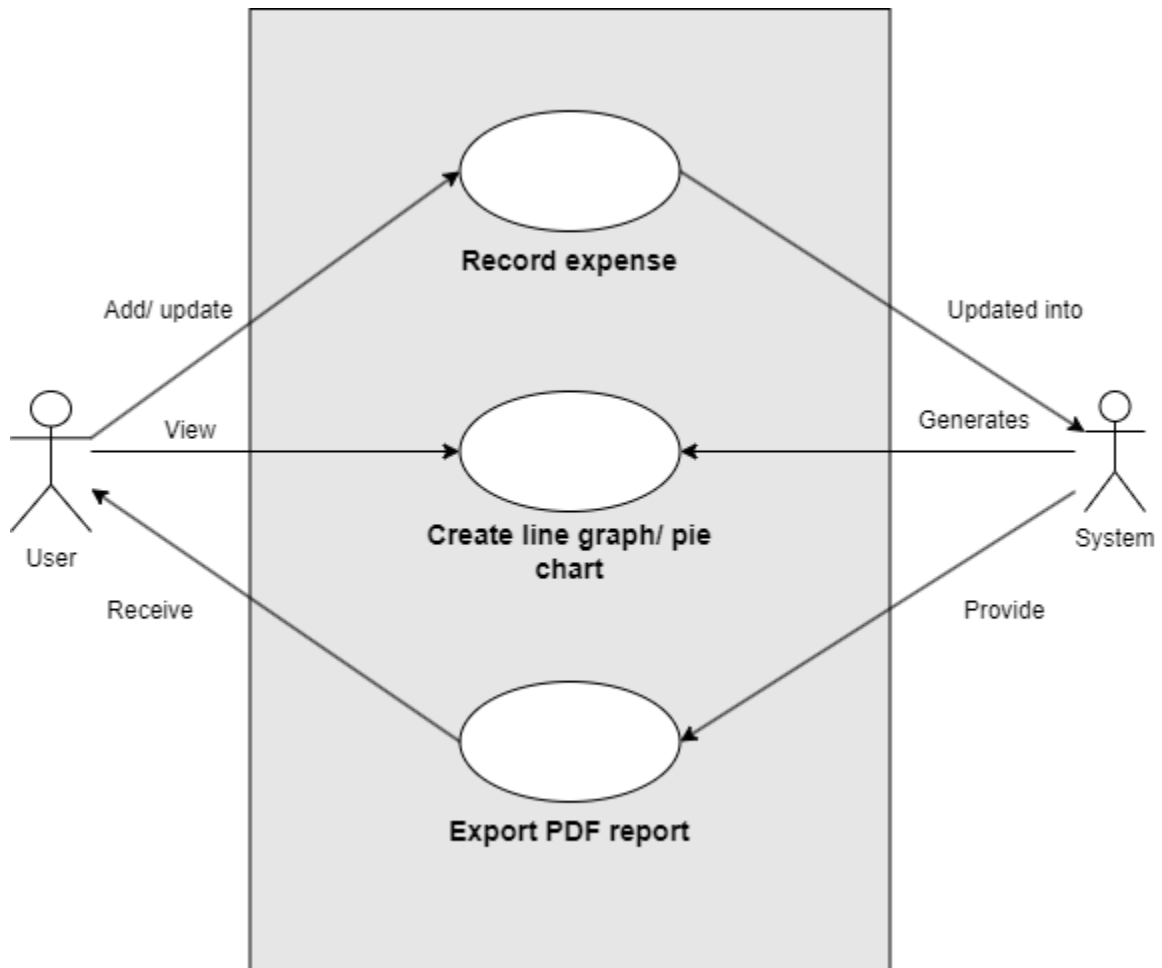


Figure 11.3: Use-Case Diagram for Record Expenses

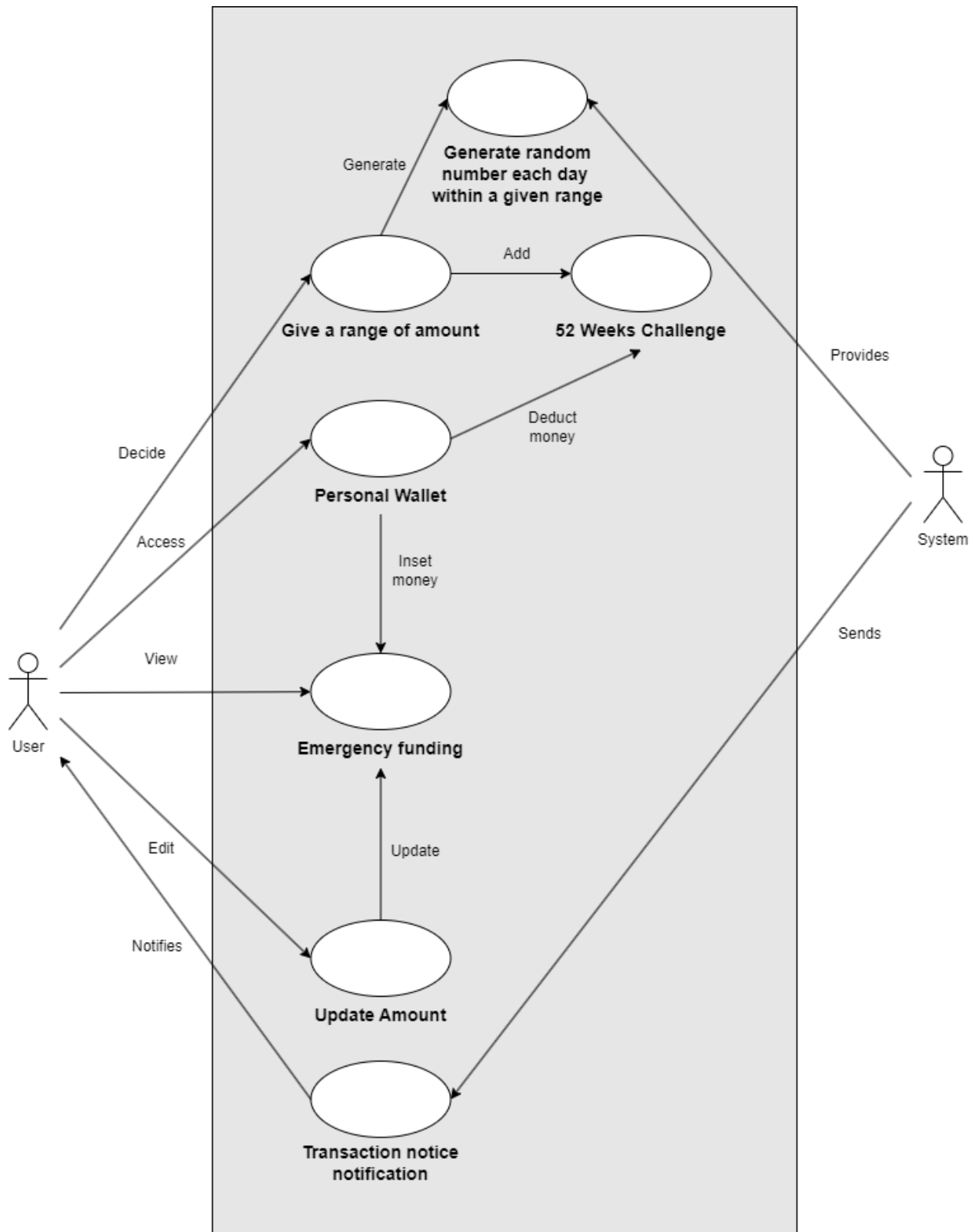


Figure 11.4: Use-Case Diagram for Emergency Funding

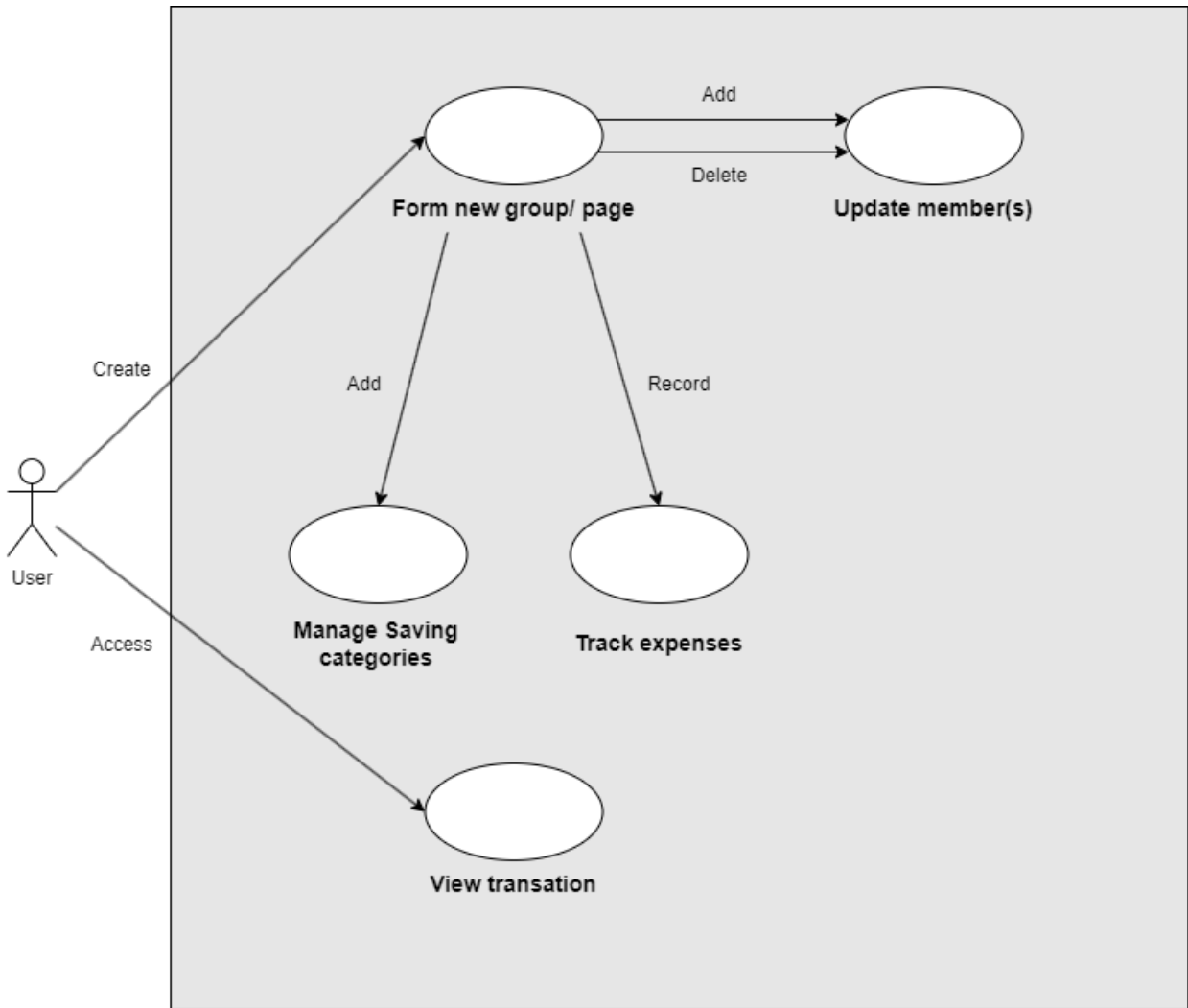


Figure 11.5: Use-Case Diagram for Shared Wallet

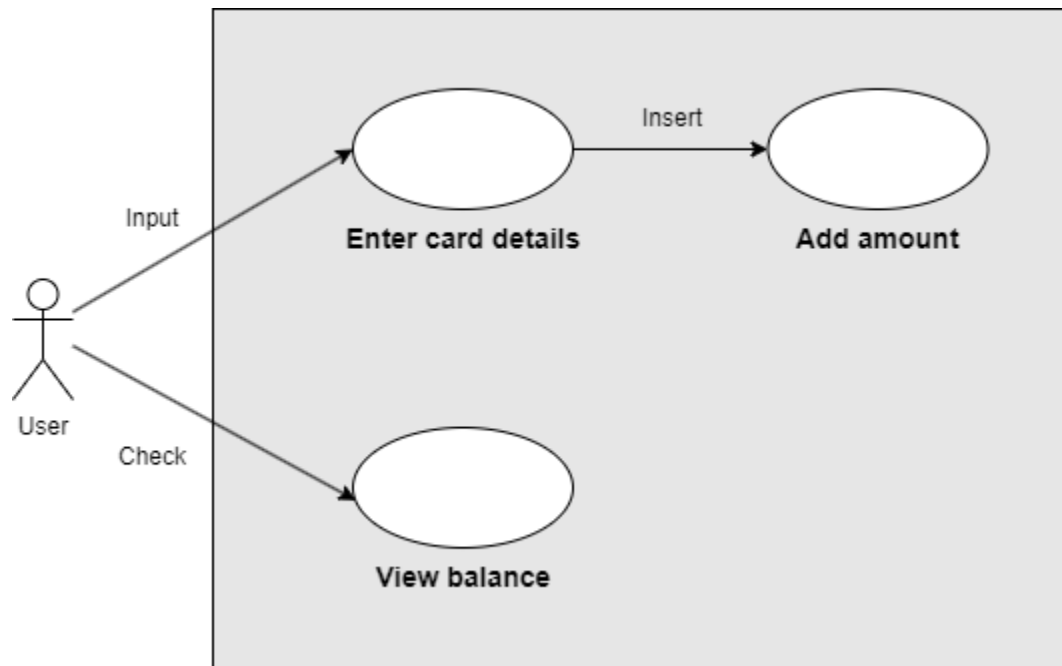


Figure 11.6: Use-Case Diagram for Personal Wallet

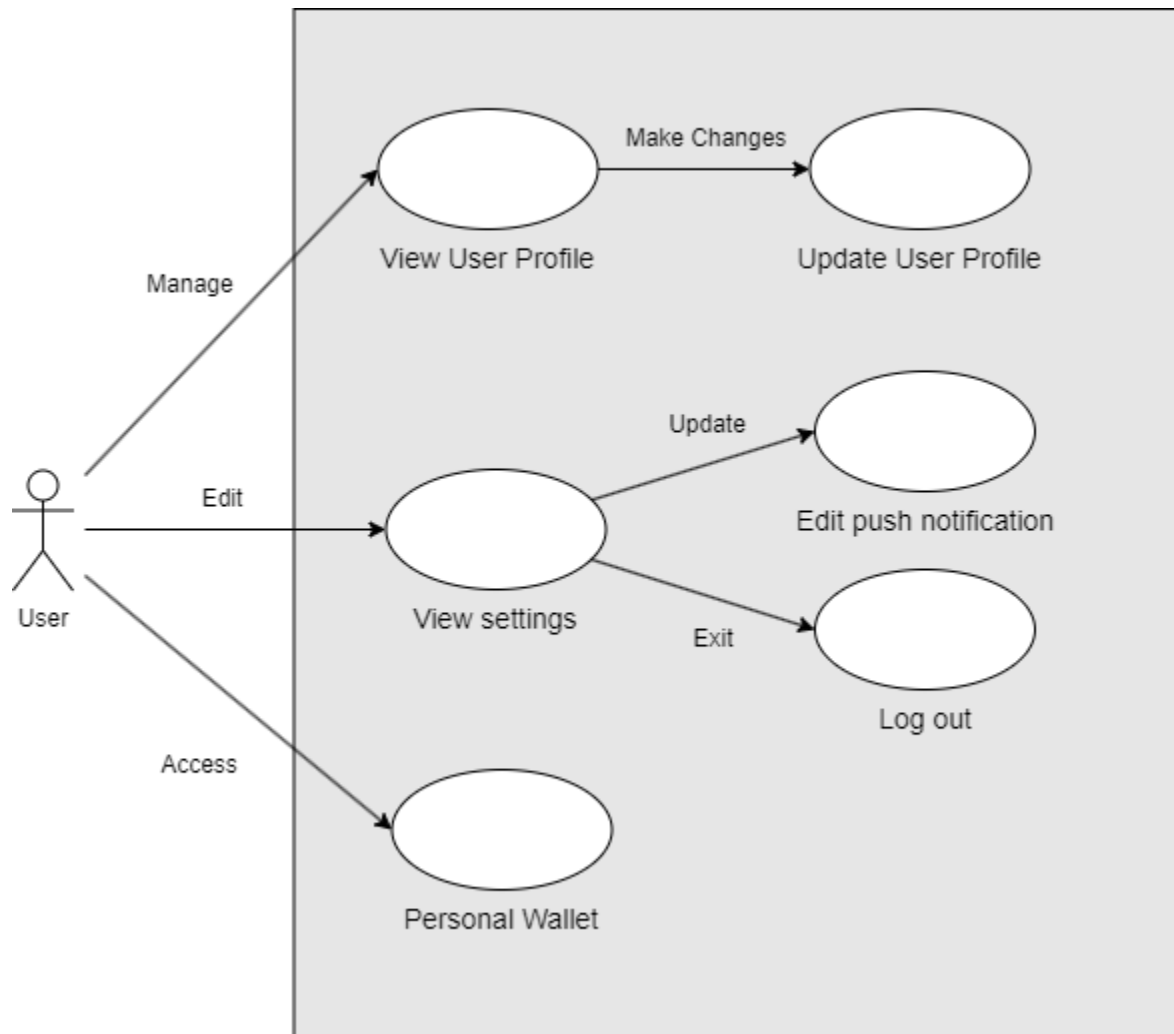


Figure 11.7: Use-Case Diagram for Profile

Section 12: Entity Relationship Diagram

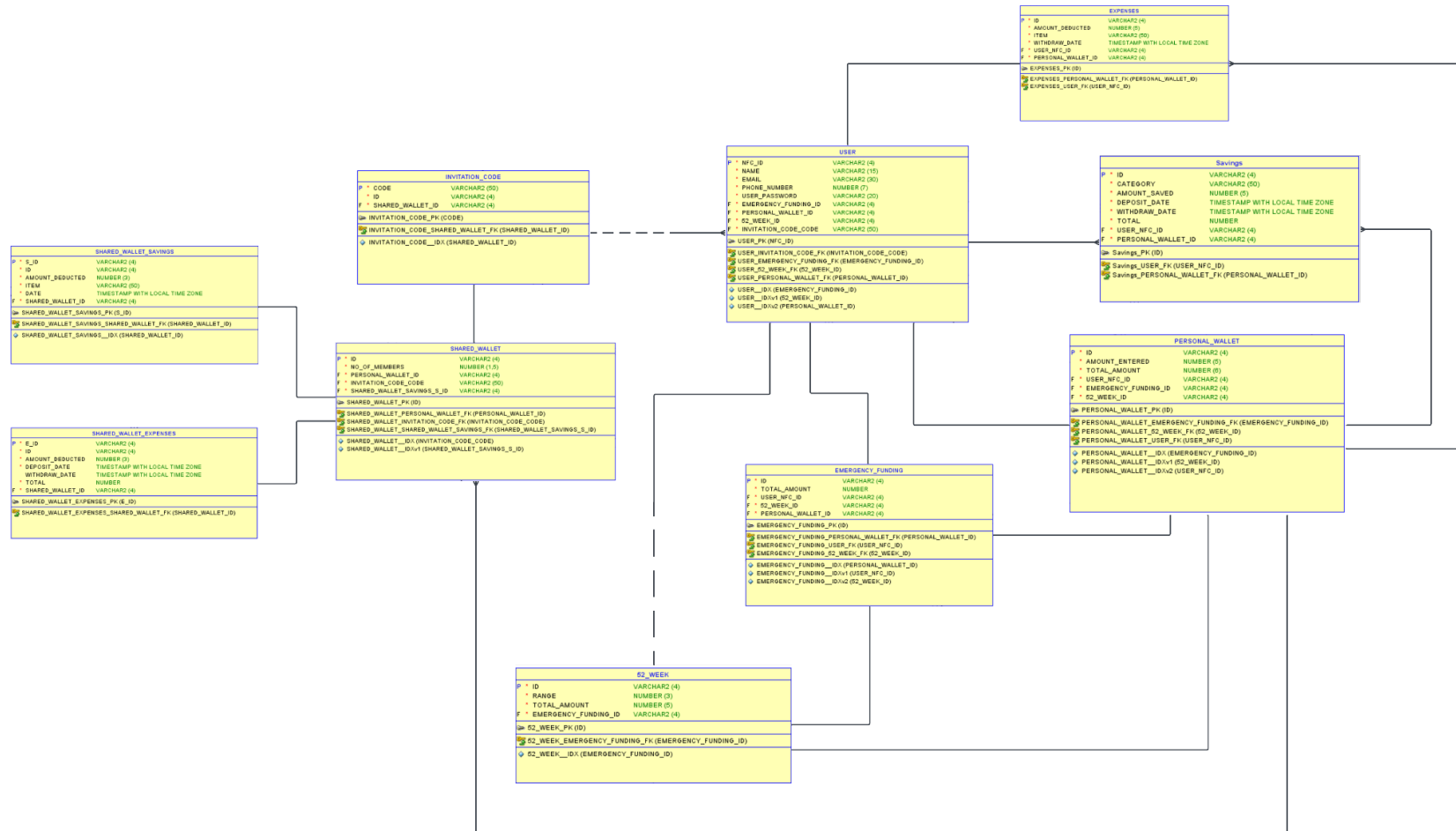


Figure 12: Buddy Entity Relationship Diagram

Section 13: References

UCD Link:

<https://app.diagrams.net/#G1Mg3ttyhvJjsg-LMdhA69byv0uxtuG7UY>

ERD Link:

https://lucid.app/lucidchart/a87fb9ce-1c73-4fb7-a67f-1be0206510fb/edit?viewport_loc=866%2C-343%2C7095%2C3817%2C0_0&invitationId=inv_3b9ad732-016e-4d40-9444-fb421c5fb1e2

High-fidelity Prototype:

<https://www.figma.com/file/uMpfNfvFULpdDGyIPBPmvM/Buddy-Prototype?type=design&node-id=252%3A133&t=TmsiaDsOqk4uNgBn-1>

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