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Individual Contribution

- **Which role(s) you had in the group.**

In our group, we assigned the six animal roles to each member (six group members in our team). However, what each member has done is not only limited to the corresponding roles. I was assigned the role “cat”. Except for this role, I also contributed some ideas when we organised the background part and designed the prototype; then we discussed whether to implement the thoughts.

My main role is “cat”. When we did our project one, every time we got new ideas and wrote them into our shared to-do list, I always thought about whether it worked fine in the project. For example, when we merged our personas, I helped to check if we had at least one persona in each category and decided to merge some personas to create more typical ones. Also, I checked if the scenarios had covered the requirement of all personas. In terms of the prototype design, I considered the possibility that inexperienced users may not totally understand the meaning of all the icons; hence I added the tutorial part into the prototype to explain buttons and icons; etc.

In project two, I identified the issues of our original prototype and the risks that the user may lose data if they mis-click the “go-back” arrow. In order to solve the problems, I deleted the “go-back” arrow on the bills page because there was no previous page. Also, I added the confirmation window -- if the user clicks the “go-back” arrows but has not saved the input data, it will pop up a window to ask the user to confirm leaving (“Are you sure you want to leave the current page?”). This design is a risk control as well, and achieves the error prevention goal.

- **Your evaluation of your performance in the role.**

I fulfilled the duties of a “cat” - identifying risks and wearying obstacles to success. I always actively participated in the discussion, and am happy with doing some work. Also, I identified risks in our project one (discussed above). For those hidden risks (that were revealed by the user testing), I fixed the issues in project two. For example, I added error prevention pages in the second version of the prototype.

It is pretty common that we had different opinions on some points, I always carefully listened to other members' thoughts and shared my own ideas. For example, my original idea of the flat finance system is to have the "Budget" functionality (the user can set up their own budget). But other group members preferred to take "connecting multiple flatmates together and having a head tenant to manage these flatmates" as the highest priority. After discussion, we decided not to include the personal finance management functions. I can put aside my opinions in order to achieve the best outcomes within our team.

Overall, as a "cat", I am satisfied with the risk controlling that I have done, because my contribution helps to avoid low coverage (personas covered by scenarios), function and design flaws, and other detailed issues (such as improving format of paragraphs of GitLab). I think if I were asked to be a "cat" next time, I would bring a stronger personality when pointing out potential risks, as it may help to make other group members take my advice more seriously.

- **Evaluation of the other members of the group as to roles and contribution.**

In our group, we not only fulfilled obligations defined by our roles, but we shared ideas, discussed, and made decisions together to finish our project. Therefore, we shared different roles most of the time. The evaluation of the other members and their contributions are shown in the table below (please see the next page):

Other Group Member	Roles Assigned	Evaluation As To Roles	Work Done and Contribution
Matthew Tansley	Rabbit	Matt's main role is "rabbit". He communicated with the course coordinator, our group members, the group who tested our prototype, and the group that we tested as users. For example, when we had different opinions, he harmonised different opinions by suggesting to vote in order to make the final decision.He is a nice communicator. In addition to "rabbit", another role that Matt shared is "owl". He contacted other group members and arranged test meetings to ensure we can get the test result as early as possible (four days before the deadline) so that we could have enough time to move on.	• Contacted course coordinator to solve the problem of the extra team member Felix — made sure members were grouped properly as early as possible; • Booked group meeting rooms and sorted out meeting times — ensured everyone can participate in meetings and joint discussions; • Took notes for all group meetings: recorded our ideas and decisions, and made a "to-do list" — clarified each member's tasks to make sure all members carried out their duties; • Create google documents to put in contents of each part in project one — as we split the works, these documents (clearly labeled) allowed us to work at the same time; • Set up GitLab structure, and uploaded the shared documents on google drives on GitLab — presented well-structured GitLab.

Marco McGowan	Bear	We didn't have an obvious leader role in our team. Marco is more like a puppy - he contributed ideas. As an experienced flatter, Marco shared his experience of flatting and told us some stories. For example, one of the flatmates didn't pay for the power bill, which inspired us to make our design to be able to avoid this situation.	• Created prototype in project 1 — one of the four contributors who did the prototype; • Contributed to the functionality of the app — eased the process of organising a flat from the perspective of a head tenant; • Extended the bullet points in the reflection of project one into paragraphs ("Prototype Reflection"); • Designed the likert scale table — this helps with quantitative analysis of the test result (Although we only have five users because of the project restrictions, it provided us with a chance to practice data analysis.); • When we had another group members be our testing users, Marco recorded the time taken by each task (a task means a user are asked to do a functionality, such as adding an incidental expense); and ticked the corresponding selection; • Did the quantitative analysis based on the test result — proved that playing around the app for five minutes in advance does not affect the test result.
Peter Liley	Puppy	Peter is an excellent "puppy" in our group. He broke the ice in our first group meeting and made us positive and happy to talk very soon. He is always enthusiastic. He helped to avoid embarrassment - we never had awkward pauses in meetings. He also contributed lots of good ideas to our project. Although not all of the ideas were accepted, sometimes he compromised and accepted other members' opinions.	• Created prototype in project 1 — one of the main contributors who did the prototype; • Recorded the video for project 1 — introduced the functions of our app clearly and fluently; • Made the descriptions of the personas very good-looking by describing the personas in a fancy format; • Contributed lots of good ideas for the whole project; • Peter was the host when we had another group try out our app. He talked to users lively and politely; and let the users follow our test plan. He was an easy-going host - this made the users relaxed and focused on trying out the app, which helped to make the test result as objective as possible. • Contributed to the qualitative analysis of the test result.

Ailin Peng	Owl	Ailin did an “owl”’s job together with Matt. She kept track of our process and schedule for project one and two, and made things move forward in a proper process — ensuring to complete group parts of project one and two in time (and actually, we did finish projects on time). Also, Ailin made sure that everyone would be assigned some tasks, and make contributions to our project, although it’s hard to balance the workload.	• Contributed bubble elements for our design — a nice shape that humans seem to be more attracted to; • Contributed to the tutorial part — helped with designing tutorial pages; • Merged and organised scenarios and put them on GitLab — achieved a 100% coverage (scenarios covering personas); • Took notes when we tested our prototype and filled in the missing information in the test result table - Made the result information comprehensive and complete; • Helped with the prototype updates — improved our original prototype; • Helped with analysing the test result qualitatively, such as the issues that existed in our original prototype and how the updates benefit the app — contributed to qualitative analysis.
Michael Wester	Wolf	Participated in group meetings. Other than that, Micheal didn’t quite fulfill his duty as a “Wolf” as he had little communication with the group outside of meetings.	• Draws model graph because the graph type in his assignment 2 was very clear and easy to read; • Created the likert pie chart and bar chart - added the visualisation for the quantitative analysis; • Contributed colour scheme idea (the main colour is blue).

Note: We defined the responsibility of the roles in our project based on the lecture content:

- Bear: leader who motivates the team.
- Wolf: manager who keeps the group together.
- Owl: process controlling - makes sure things move forward.
- Puppy: enthusiast who is positive, eager, enthusiastic and happy.
- Cat: cynic - identifies risks; weary of obstacles to success.
- Rabbit:facilitator who is the problem solver and communicator.

- **Evidence for the work you have done, for example a link to the list of issues which you were responsible for in Gitlab.**

1. **Project background**

   1.1 Existing solutions

   Collected the existing solutions from groups members' assignments, and analysed their advantages and disadvantages (https://docs.google.com/document/d/1PMEqtUhUn8BIIuF9BZuNje-PEo3BMLFsR5rCnoliZWQ/edit)

   1.2 Business objectives

   I combined all business objectives (mentioned in our assignment 2) together, deleted duplicated ones, and classified them into corresponding categories for discussion. (https://docs.google.com/document/d/1Fiw1DRGmEIj4mi0cfpbRATqpUdsY2VQwoo2BZrxKTkw/edit)

2. **Personas**

   I contributed two personas to the project. We classified personas into six types, and had one persona in each type. One of my personas is Nick Angus (Cruiser/Normie); another one is Gabby Kim (Financial/Technological Difficulties). (https://docs.google.com/document/d/1dL-9Za55j8qEnTYJvzR19HmKTc1u56q7PYI7Daxpucs/edit)

3. **Scenarios**

   Checked if the scenarios matched personas; and added the missing personas to achieve 100% coverage.

4. **Design review**

   In terms of heuristic evaluation, I evaluated Peter, Michael, and Ailin's prototypes. (https://docs.google.com/spreadsheets/d/1p4IUCwRMAHoHTAIyB__hGcyDZOdgnFry9mDmKzrdwmc/edit#gid=1935160395)

5. **Prototype**

   5.1 Information / Help

   I created the Tutorial pages to explain the functionality and icons with Ailin. (https://drive.google.com/drive/folders/1qqn3iRYj3lmS4QFdYv-7FGwQXnwPgW36)

   5.2 Bugs

   I found some bugs when running/testing the prototype and reported them to Peter.

6. **Reflection (project 1)**

   I wrote some paragraphs in our reflection. For example, the *Best and worst parts of the prototype*.
   (https://gitlab.ecs.vuw.ac.nz/tanslematt/swen303/-/commit/4dad6fae70225347705bb55fc22c175feb98413b,

   https://gitlab.ecs.vuw.ac.nz/tanslematt/swen303/-/commit/d145e7ffd9c247d6077448539e982f217cfefffc)

7. **Check if the questions in the testing cover the scenarios**

   Yes, we do have 100% coverage with some similar scenarios merged into one question.

8. **User test result**

   8.1 Took notes when users tried out our app.

   The meeting recording is “Notes_Original_meeting.PDF”.

   (https://drive.google.com/drive/folders/1La4orMavPe6UMfg0hOL6lr-NHRHqx5vm)

   8.2 Then I labeled the users as U1, … U5, and did a brief description for them. Also, I summarised the results based on the metrics. By analysing the test results, I listed the issues that will be updated in our second version of the prototype.
   (https://docs.google.com/document/d/1sspjlSNKgLs5Wlk9hYbdrXw5KqCToc_QlMHpTxiUBdU/edit)

9. **Update prototype in project 2**

   9.1 Updated the prototype to fix the issues in the original prototype.
   The final updated file is “FFM_Updated_PJ2”:
   (https://drive.google.com/drive/folders/1qqn3iRYj3lmS4QFdYv-7FGwQXnwPgW36)

   9.2 Clearly identified updates from the original update with text justification, the rationale for the updates, and how they benefit the project;
   (https://docs.google.com/document/d/1sspjlSNKgLs5Wlk9hYbdrXw5KqCToc_QlMHpTxiUBdU/edit)

   and took screenshots highlighting the major changes (screenshots in the file “updates_pics.pdf”).
   (https://drive.google.com/drive/folders/1La4orMavPe6UMfg0hOL6lr-NHRHqx5vm)

10. **Check the GitLab After All Contents Have Been Put onto it.**

    I identified the risk of any missing files by looking through all things on GitLab and checked if all links work, and if there is anything missed.

    Added the missed test result table:
    (https://gitlab.ecs.vuw.ac.nz/course-work/swen303/2021/project1/t11/swen303/-/commit/421ccdaa5339222d59d5496c8481b141f4b67221)

    Added the missed updated prototype:
    (https://gitlab.ecs.vuw.ac.nz/course-work/swen303/2021/project1/t11/swen303/-/commit/a62dc9ba58d2c7686861108e95e904ba6222f58d)

Reflection

- **The contribution you are most proud of in the project/course, and why you are proud of that piece of work.**

I am quite proud of the error prevention mechanism that I implemented in the project. When a user is adding a new expense, he needs to type in information about the new expense. In the original prototype, if the user misclicks on the return button, he would be instantly directed back to the previous page and lose all the information he just typed. After the implementation of the error prevention mechanism, when a misclick happens, the user would receive a confirmation window stating: “If you leave the page now, this information will not be saved. Are you sure?”. In this way, the user can decide whether to stay on the page and keep working, or he really wants to leave the page without saving the data.

This mechanism gives users some room to make mistakes. Also, it provides users with some status information (to let users know that leaving the page will cause data loss). Hence, users won't have to worry about disrupting their process. Overall, considering that re-entering so much information is annoying, this mechanism improves the user experience.
(The error prevention page has been added to the incidental expense adding part. Other types of expenses share the same idea, although this page is not added to all of them.)

- **The key things you learnt about User Experience that you will take forward into other projects**

I learnt lots of techniques and skills about User Experience. By doing the assignments and projects, I got an idea about how to develop systems with users as the center of the design. The key things that I learnt include:

1. **Checking out existing solutions**: In practice, developers usually design their applications based on the existing solutions. Considering different user requirements and situations, they use the outstanding designs in the existing solutions for reference.

2. **Target users**: User experience is different from “developer experience”. As a developer to create applications, I found it hard to put yourself into different types of users’ shoes. Therefore, when developing a system/interface, developers need to first figure out which type of personas would be the target users. Asking experienced flat students and friends about their flat experiences is a good way to summarise personas types.

3. **Different users**: By doing the user testing, I noticed that the test results of different kinds of users vary. Therefore, I will consider different personalities, requirements, and preferences, such as inexperience and experienced users, different mother languages, etc. This helps to improve the **functionality** of the app.

4. **Colour**: It is significant to attract more users. The colour is usually the first element that the user will notice. Therefore, picking colours that most people like is essential.

5. **User-friendly interface**: It is important to have a clear and simple interface (with well-labeled buttons and icons). Asking more users to try out the app helps to check out which parts confuse them and need to be improved.

6. **Conducting user test**: I understood how to run a user test. First, we need to make a test plan. All group members need to collaborate by doing different tasks, such as introducing our app and reading the questions, time recording for each question, test result recording, feedback recording, and so on.

7. **Qualitative and quantitative analysis**: It is a good idea to implement data science knowledge to analyse the test result. Qualitative and quantitative analysis provide different perspectives of user feedback.

8. **Error prevention**: In order to make the application reliable, I will make sure that the user won't lose information (so that they don't have to re-enter all information again).

Here listed are the key things that I learnt. In addition to these things, I also got experience of teamwork, which is an essential skill in the real world.

- **How the group collaboration functioned as a whole and how you contributed to functional and/or dysfunctional aspects of the group.**

We were able to solve problems as a group and successfully finished our application design. The main aspects of our group collaboration and how I contributed include:

1. **Efficient cooperation**: We clearly assigned the tasks to group members and told them how and when they must complete them. When an update on tasks is needed, group members had effective communication with each other to make sure everyone acknowledged the update as soon as possible. In this way, we ensured our process was on schedule.

   How I contributed to this aspect: I finished all of my tasks before the due dates. Communicated with other members on time when needed. I never delayed my work, or negatively affected others' processes.

2. **Positive collaboration**: Our collaborations came together naturally. By doing the "to-do" list with the corresponding assigned group member(s), each member was satisfied with the evidence as to what they contributed to the teamwork. Also, we were happy with the collaboration by being given the evidence as to why other members made sense.

   How I contributed to this aspect: I positively collaborated with other members' work. I always had a rough picture of what other members were contributing to our teamwork. This helped me to finish my part of the task quickly so that other members could move on based on my work. Then I knew to whom I needed to communicate for the issues.

3. **Effective meetings**: We structured our group meetings well -- we always made our purposes and plans (for the upcoming meeting) clear in advance. Hence, we avoided

irrelevant conversations and discussions; and made most use of the limited meeting time.

How I contributed to this aspect: I ensured that all team members received and agreed on the agenda either before or at the beginning of the meeting.

4. **Adequate Information Sharing**: Because we split the work to different group members, some member's work depended on that of another member. For example, the qualitative analysis (done by one member) depended on the qualitative testing results in the metrics table (done by another member). We managed this case by sharing our progress and concerns on Messenger and Google Docs.

   How I contributed to this aspect: Once I had done some work, I uploaded the new contents to our shared files. I developed trust in our team and made the project information transparent.

5. **Public conversations and processes**: We never had conversations and processes that cut out others; or made decisions outside the group processes. This is the reason why we all had trust and confidence in our team.

   How I contributed to this aspect: I never excluded any member from any topics. I never privately messaged any group members for our project. Instead, I talked to them in our group chat. All members would see what I said; if they didn't agree with me, we could discuss together to make the best decision.

6. **Decision Making**: We made decisions together. When there was an argument between group members, a hands-up vote was the solution. For example, we voted to decide which colour scheme is the best among us.

   How I contributed to this aspect: I positively participated in decision-making. Also, considering the fact that some people respond to a question quickly, while others need to go back and think slowly through all options, I still took the late opinions into account in order not to miss a potential better solution.

Overall, we collaborated well to finish the projects. On the one hand, we had a good team relationship by building the team's trust and confidence, supporting each other, and not excluding any member; on the other hand, we communicated transparently and efficiently, and we all tried our best to fulfill our duties to ensure a steady moving forward.