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CS 3201N – CS Thesis 1 (Data Gathering)

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CS Thesis 1 Process

6 essential questions that must be answered:

1. What is the problem? (Literature!)

   2 possibilities:

   new problem -> find a solution-known problem

   existing solutions -> find a better solution

2. What has been done (by others) already to solve this problem? (Literature!)

3. What is missing? What is not good in other approaches/solutions? (Literature!)

4. What are you planning to do?

5. What will be the result(s) in the end?

6. Rough idea (description) of the way to the end -finished capstone

   -(to reach the goal, i.e. solve the problem)includes time plan:

   -what has already been achieved

   -what has still to be done

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Citations and References

- Thesis Proprosal requires the use information from sources such as your textbook, lab manual, a reference book, and articles published in journal.

- You need to tell the readers where the information came from and where the readers can locate the sources.
  - This is what citations and references are for.

Citations and References

- A **citation** tells the readers where the information came from.
  - In your writing, you cite or refer to the source of information.

- A **reference** gives the readers details about the source so that they have a good understanding of what kind of source it is and could find the source themselves if necessary.
  - The references are typically listed at the end of the proposal/project document.

References, Citations and Quotations

- There are many different forms of documentation (systems of citation and reference), varying across academic fields.

- *Format for References, Citations, and Quotations* based from the American Psychological Association (APA) format*.

For reference

- https://owl.english.purdue.edu/owl/resource/560/01/

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Examples of Citations

- "Smith (1983) found that N-fixing plants could be infected by several different species of *Rhizobium*.“
- "Walnut trees are known to be allelopathic (Smith 1949, Bond et al. 1955, Jones and Green 1963).“
- "Although the presence of *Rhizobium* normally increases the growth of legumes (Nguyen 1987), the opposite effect has been observed (Washington 1999)."

References

- Only sources that were used or cited in the research work are included

- At least containing 20-30 author citations for undergraduate thesis (Masters may contain at least 50, PhD at least 100)

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Different Sources of References

- Book
- Journal Article
- Conference Proceedings Article
- Web Article
- Interview

Examples of References

Single Author

Last name first, followed by author initials.

Berndt, T. J. (2002). Friendship quality and social development. *Current Directions in Psychological Science, 11*, 7-10.

Two Authors

List by their last names and initials. Use the ampersand instead of "and."

Wegener, D. T., & Petty, R. E. (1994). Mood management across affective states: The hedonic contingency hypothesis. *Journal of Personality and Social Psychology, 66*, 1034-1048.

Three to Seven Authors

List by last names and initials; commas separate author names, while the last author name is preceded again by ampersand.

Kernis, M. H., Cornell, D. P., Sun, C. R., Berry, A., Harlow, T., & Bach, J. S. (1993). There's more to self-esteem than whether it is high or low: The importance of stability of self-esteem. *Journal of Personality and Social Psychology, 65*, 1190-1204.

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Examples of References

Book

Haddow, G. D., & Haddow, K. S. (2014). *Disaster Communications in a Changing Media World.* Oxford, United Kingdom: Elsevier Inc.

Longley, P. A., Goodchild, M. F., Maguire, D. J., & Rhind, D. W. (2011). *Geographic Information Systems & Science.* Hoboken, New Jersey, United States of America: John Wiley & Sons, Inc.

Sommerville, I. (2011). *Software Engineering* (9th ed.). Boston, Massachusetts, USA: Addison - Wesley.

Journal Article

Elwood, S. (2008, August). Volunteered geographic information: future research directions motivated by critical, participatory, and feminist GIS. *GeoJournal, 72*(3-4), 173-183. doi:10.1007/s10708-008-9186-0

Goodchild, M. F. (2007, November 20). Citizens as sensors: The world of volunteered geography. *GeoJournal, 69*, 211-221. doi:10.1007/s10708-007-9111-y

Ilarri, S., Mena, E., & Illarramendi, A. (2010, March). Location-dependent Query Processing: Where We Are and Where We Are Heading. *ACM Computing Surveys, 42*(3), 1-73. doi:10.1145/1670679.1670682

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Examples of References

Conference Proceedings Article

Jin, G., Nicolai, B., & Jiang Keyuan, W. C. (2011). Distributed image processing and classification for GIS based disaster management and communication system. *Proceedings of the 2nd International Conference on Computing for Geospatial Research & Applications - COM.Geo '11* (pp. 1-6). Washington, DC, USA: ACM. doi:10.1145/1999320.1999347

Lorenzi, D., Vaidya, J., Soon, C., Shafiq, B., Naik, V., Atluri, V., & Nabil, A. (2013). Community based emergency response. *Proceedings of the 14th Annual International Conference on Digital Goverment Research* (pp. 82-91). New York: ACM. doi:10.1145/2479724.2479739

Streefkerk, J. W., van Esch-Bussemakers, M. P., & Neerincx, M. A. (2008). Field Evaluation of a Mobile Location-based Notification System for Police Officers. *Proceedings of the 10th International Conference on Human Computer Interaction with Mobile Devices and Services* (pp. 101-108). Amsterdam, The Netherlands: ACM. doi:10.1145/1409240.1409252

Toups, Z. O., & Kerne, A. (2007). Implicit Coordination in Firefighting Practice: Design Implications for Teaching Fire Emergency Responders. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 707-716). San Jose, CA, USA: ACM. doi:10.1145/1240624.1240734

Examples of References

Jin, G., Nicolai, B., & Jiang Keyuan, W. C. (2011). Distributed image processing and classification for GIS based disaster management and communication system. *Proceedings of the 2nd International Conference on Computing for Geospatial Research & Applications - COM.Geo '11* (pp. 1-6). Washington, DC, USA: ACM. doi:10.1145/1999320.1999347

Lorenzi, D., Vaidya, J., Soon, C., Shafiq, B., Naik, V., Atluri, V., & Nabil, A. (2013). Community based emergency response. *Proceedings of the 14th Annual International Conference on Digital Goverment Research* (pp. 82-91). New York: ACM. doi:10.1145/2479724.2479739

Streefkerk, J. W., van Esch-Bussemakers, M. P., & Neerincx, M. A. (2008). Field Evaluation of a Mobile Location-based Notification System for Police Officers. *Proceedings of the 10th International Conference on Human Computer Interaction with Mobile Devices and Services* (pp. 101-108). Amsterdam, The Netherlands: ACM. doi:10.1145/1409240.1409252

Toups, Z. O., & Kerne, A. (2007). Implicit Coordination in Firefighting Practice: Design Implications for Teaching Fire Emergency Responders. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 707-716). San Jose, CA, USA: ACM. doi:10.1145/1240624.1240734

Appendices

List of appendices applicable during proposal stage

- Transmittal Letter
- Interview Guide/Questionnaire
- Software Requirements Specifications

Transmittal Letter

- A transmittal or cover letter accompanies a larger item, usually a document.

- The transmittal letter provides the recipient with a specific context in which to place the larger document and simultaneously gives the sender a permanent record of having sent the material.

Transmittal Letter

- Transmittal letters are usually brief. The first paragraph describes what is being sent and the purpose for sending it.

- A longer transmittal letter may summarize key elements of the proposal in one or two sentences and provide the recipient with other useful information.

- End transmittal letters with a one-sentence paragraph that establishes goodwill by thanking or complimenting the recipient.

Example of Transmittal Letter

<Date>

<Name of the Owner/Head>
<Position>

Dear <Last Name of the Owner/Head>,

Greetings!

May we request from you the permission to gather information from you for our capstone project entitled "<title of capstone project>."

The above research study is a requirement for the completion of the degree of <course> in the Department of Computer and Information Sciences and Mathematics of the University of San Carlos. We are confident that the result of the study would be useful and helpful in the betterment of the community.

Thank you very much. I am looking for your positive response.

Respectfully yours,

<Student Complete Name>

<Student Complete Name>

<Student Complete Name>

<Student Complete Name>

Noted by:

<Capstone Adviser Complete Name>
Capstone Project Adviser

Approved by:

<Name of the Owner/Head>
<Position>

Interview Guide/Questionnaire

- Interview Guide
  - List of high level topics that you plan on covering in the interview with the high level questions that you want to answer each topic.

- Questionnaire
  - Written questions with a choice of answers, devised for the purpose of a survey or statistical study.

Example of Interview Guide

Transcript of Interview with Dr. Leyco, IM, Endocrinologist

***Date of Meeting*:** May 18, 2021 (Tuesday)

Venue: Messenger

Meeting attendees: Mary Bernadette J. Ferolin (researcher/interviewer) and Dr. Theresa G. Leyco (Internal Medicine Endocrinologist / Interviewee)

***Start Time*:** 6:18 p.m.

***End Time*:** 7:20 p.m.

-- Start of Interview --

Bernadette: Good evening Dr. Leyco. I hope I am not disturbing you too much at this moment. I would like to expound more regarding the thesis which has been proposed by my partner and me. It's a Thyroid Wellness Analysis system that allows a person to be guided on assessing the condition of their thyroid. So the way this is done is by allowing the person to answer a series of questions regarding manifestations of either hyperthyroidism or hypothyroidism. If the system believes that there is a high chance of thyroid disease, it informs the person and encourages them to go see a doctor. But if it's alright with you, I have a few more questions to ask regarding the doctor's side of the processes taken in determining and diagnosing the thyroid disease?

Dr. Leyco: Ok sige

Bernadette: Thank you. I would like to ask untah regarding the clinical process. Like what happens when a patient goes to see you and then tells you about what they're feeling.

Dr. Leyco: After asking the patient about her symptoms, getting her medical, family, and personal/social history, we do a physical examination. We check the vital signs (bp, heart rate, respiratory rate, temp), measure weight and height, examine each organ system, then we discuss the diagnosis or at least the impression at that point and the diagnostic and therapeutic plans

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Example of Questionnaire

STUDENT PREFERENCE

Dear Respondent,

Greetings! I am conducting a research study entitled "AUTOMATIC BLOCK SCHEDULING AND COURSE-FACULTY TIMETABLING". In connection with this, I would like to request your participation in answering this questionnaire honestly. Rest assured that the information you provide will be treated with confidentiality. Thank you very much.

Sincerely,
The Researcher

Respondent Name (Optional): _____
Course & Year: _____

1 **Please indicate how you plot your schedule during enrollment (check only one):**

___ based on Block Schedule
___ manually plot schedules based on course offerings
___ used Block Schedule as a guide then modify to customize
___ others please specify_____

2 **Please indicate which is your DAY schedule preference:**

___ MWF
___ TTH
___ SAT
___ WEEKDAYS
___ others please specify_____

3 **Please indicate which is your TIME schedule preference (check only one):**

___ Morning only
___ Afternoon only
___ Evening
___ Wholeday
___ others please specify_____

4 **Please indicate which is your preference in terms of scheduling your breaks between classes (check only one):**

___ long break periods in between classes
___ short break periods in between classes
___ others please specify_____

5 **Please indicate which DAY and TIME you prefer to schedule a major course or subject:**

___ MWF morning
___ TTH morning
___ SAT morning
___ MWF afternoon
___ TTH afternoon
___ SAT afternoon
___ MWF evening
___ TTH evening
___ SAT evening

6 **Please indicate which time of the day you are mentally alert:**

___ early morning
___ mid morning
___ noon
___ after lunch break
___ afternoon
___ evening
___ others please specify_____

7 **Please indicate which of the following is favorable to you in making a block section:**

___ distribution of schedule of difficult courses and easy courses to a specific day and time
___ alternate schedule for major and minor courses
___ short break periods as much as possible between course schedules
___ minimal vacant time except when there is a need to allocate extra time to travel between different buildings
___ maximum of consecutive three to four hours course schedules
___ minimize the number of transfer from one building to another per day
___ minimize the number of transfer from one campus to another per day
___ less evening classes
___ no Saturday classes
___ appropriate lunch period
___ others please specify_____

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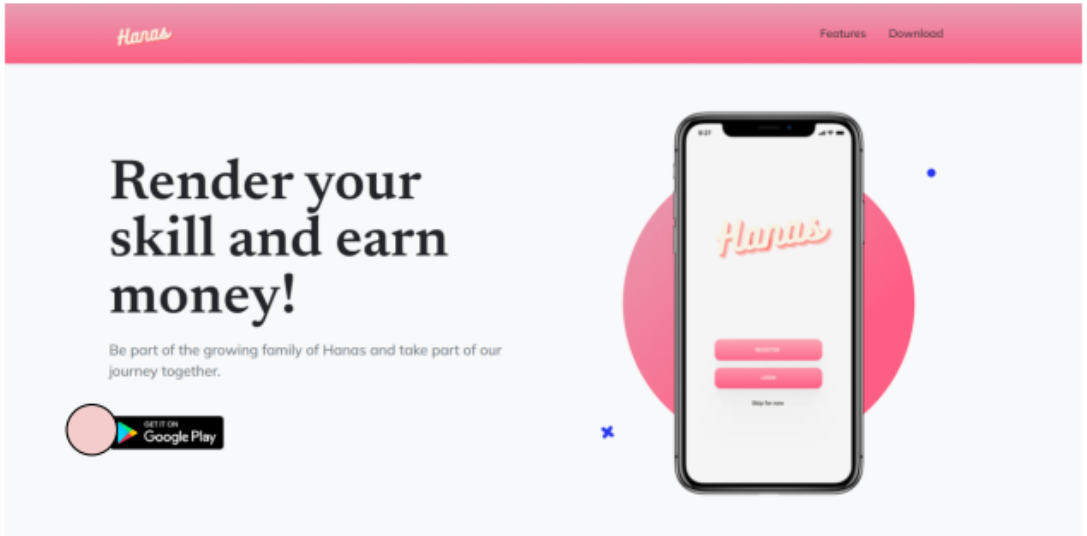
Software Requirement Specifications (SRS)

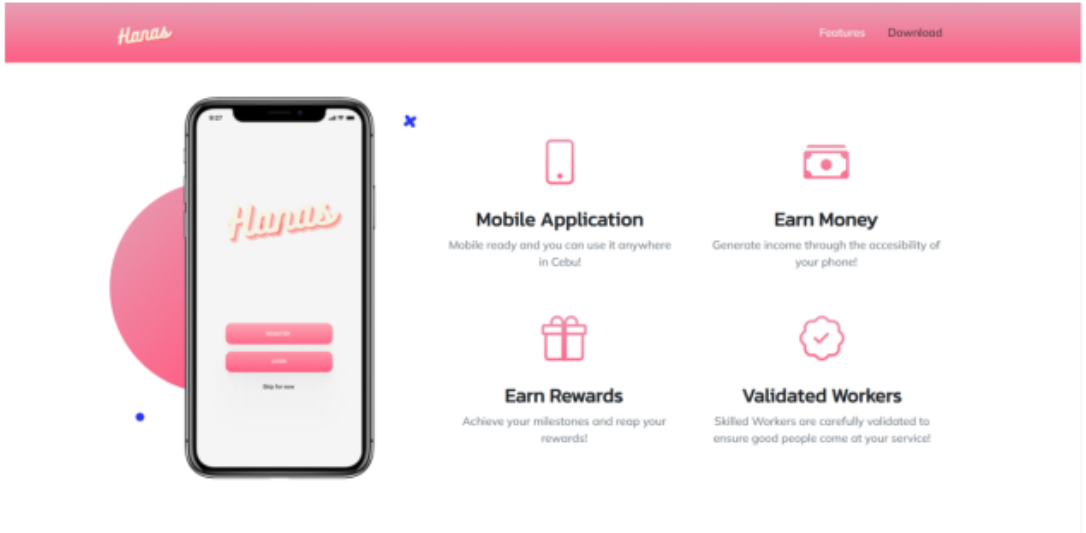
- It is a document that describes what the software will do and how it will be expected to perform

- It also describes the functionality the product needs to fulfil the needs of the stakeholders (business, users).

Examples of SRS

Web Advertisement Page





1. Get it on Google Play Button - Redirects the user to the app store page of the application.

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Thank you for listening.

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