

Research Proposal Form			
Student name:	Nguyen Trung Nguyen	Student number:	GCC19275
Centre name:	Greenwich VN	Date:	23/02/2022
Tutor:	Tran Hoang Viet		
Unit 13:	Computing Research Project		
Proposed title:	<i>Research and propose 4G internet packages of internet service providers suitable for online learning of students in Can Tho</i>		
Section One: Title, objective, responsibilities			
<p>Question:</p> <ul style="list-style-type: none"> • <i>Who are the internet service providers?</i> • <i>Typical 4G packages of internet service providers?</i> • <i>Price of each 4G internet package?</i> • <i>Internet service providers coverage in Can Tho</i> • <i>How to know which 4G internet package is suitable for online learning?</i> <p>Aim: Research and compare 4G packages suitable for online learning for students</p> <p>Objectives:</p> <ul style="list-style-type: none"> • <i>The 4G service providers in Vietnam are Viettel, MobiFone and Vinaphone</i> • <i>Viettel has package UMAX50N, Vinaphone has package B50SV and MobiFone currently has package ED50</i> • <i>The price of each proposed package is 50,000 VND per month</i> • <i>According to the published test results, the life coverage of MobiFone is 100%, Viettel 100%, and VNPT 99.99%.</i> • <i>Depending on the coverage, and the frequency of using the internet for online learning, we will recommend suitable internet packages.</i> <p>Expected outcome:</p> <ul style="list-style-type: none"> • Complete the Research Proposal • As a reference suitable 4G packages • Complete the assignment on time 			
Section Two: Reasons for choosing this research project			
<p>Because this is a new research topic, very few people research it and it is also necessary in the life that online learning becomes familiar to students. I would like this research to be of little help to students who are wondering which internet package is the best for online learning</p>			
Section Three: Literature sources searched			
<p>1. Ayad, M. <i>et al.</i> (2021) 'Evaluation of 4G / LTE mobile network performances based on experimental data', in <i>2020 2nd International Workshop on Human-Centric Smart Environments for Health and Well-being (IHSH). 2020 2nd International Workshop on Human-Centric Smart</i></p>			

Environments for Health and Well-being (IHSH), pp. 137–141.
doi:10.1109/IHSH51661.2021.9378732.

2. Burke, P.J. (2022) '4G Signal Propagation at Ground Level', *IEEE Transactions on Antennas and Propagation*, pp. 1–1. doi:10.1109/TAP.2021.3137221.
3. VietNamNet (2019) *Which 4G carrier is the cheapest?*, VietNamNet. Available at: <https://ictnews.vietnamnet.vn/vien-thong/4g-nha-mang-nao-dang-re-nhat-32081.html> (Accessed: 23 February 2022).
4. VietNamNet (2021) *Announcement of test results of mobile telecommunications services, 3G, 4G*, VietNamNet. Available at: <https://vietnamnet.vn/vn/cong-nghe/vien-thong/cong-bo-ket-qua-do-kiem-dich-vu-vien-thong-di-dong-3g-4g-724460.html> (Accessed: 23 February 2022).

Section Four: Activities and timescales

1. Collect material relating to research's question and objectives
2. Complete research proposal
3. **Milestone 1 [10-03]:** Get feedback from the Tutor about the research proposal
4. Produce project plan
5. Writing literature review and represent the findings in term of hypothesizes
6. Check project progress: research proposal, plan, literature review, hypothesis
7. Preparation for primary research (to confirm the findings in literature review or clarify the questions might arise after the literature review)
8. **Milestone 2 [24-03]:** Get feedback from the Tutor about the plan of primary research
9. **Milestone 3 [26-03]:** Get feedback from the Tutor about the result of literature review
10. Conducting the primary research
11. **Milestone 4 [16-04]:** Represent the findings in primary research and get feedback from Tutor
12. Writing assignment 1 which contains LO1, LO2
13. **Milestone 5 [22-04]:** Submit assignment 1 - Final

Section Five: Research approach and methodologies

- Research process: Sequential
- Research classes: Quantitative and qualitative
- Research methods: Online survey

Research Ethics Approval Form

Section One: Basic details

Project title: Research and propose 4G internet packages of Vietnamese carriers suitable for students' online learning in Can Tho in 2022

Student name: Nguyen Trung Nguyen

Student number: GCC19275

Programme: Computing Research Project

School: Greenwich Can Tho

Intended research start date: 01/03/2022

Intended research end date: 22/04/2022

Section Two: Project summary

Please select all research methods that you plan to use as part of your project:

- Interviews ✓
- Questionnaires ✓
- Observations
- Use of personal records
- Data analysis ✓
- Action research
- Focus groups
- Other (please specify):

Section Three: Participants

Please answer the following questions, giving full details where necessary.

Will your research involve human participants?

Who are the participants? Tick all that apply:

Children aged 12–16: ☐ Young people aged 17–18: ☒ Adults: ☒

How will participants be recruited (identified and approached)?

Describe the processes you will use to inform participants about what you are doing:

How will you obtain consent from participants? Will this be written? How will it be made clear to participants that they may withdraw consent to participate at any time?

Studies involving questionnaires:

Will participants be given the option of omitting questions they do not wish to answer?

Yes: ☒ No: ☐

If No please explain why below and ensure that you cover any ethical issues arising from this:

Studies involving observation:

Confirm whether participants will be asked for their informed consent to be observed.

Yes: ☒ | No: ☐

Will you debrief participants at the end of their participation (i.e. give them a brief explanation of the study)?

Yes: ☒ | No: ☐

Will participants be given information about the findings of your study? (This could be a brief summary of your findings in general.)

Yes: ☒ | No: ☐

Section Four: Data storage and security

Confirm that all personal data will be stored and processed in compliance with the Data Protection Act (1998):

Yes: ☒ | No: ☐

Who will have access to the data and personal information?

During the research:

Where will the data be stored?

Will mobile devices (such as USB storage and laptops) be used?

Yes: ☒ | No: ☐

If yes, please provide further details: Data will be stored online at google cloud

After the research:

Where will the data be stored?

- Data will be stored online at Google Cloud

How long will the data and records be kept for and in what format?

- Data and records will be packaged in .zip format and stored permanently

Will data be kept for use by other researchers?

Yes: ☐ | No: ☒

If yes, please provide further details:

Section Five: Ethical issues

Are there any particular features of your proposed work which may raise ethical concerns? If so, please outline how you will deal with these:

It is important that you demonstrate your awareness of potential risks that may arise as a result of your research. Please consider/address all issues that may apply. Ethical concerns may include, but are not limited to the following:

- Informed consent.
- Potentially vulnerable participants.
- Sensitive topics.
- Risks to participants and/or researchers.
- Confidentiality/anonymity.
- Disclosures/limits to confidentiality.

- Data storage and security, both during and after the research (including transfer, sharing, encryption, protection).
- Reporting.
- Dissemination and use of your findings.

Section Six: Declaration

I have read, understood and will abide by Research Ethics Policy:

Yes: ☒ | No: ☐

I have discussed the ethical issues relating to my research with my Unit Tutor:

Yes: ☒ | No: ☐


















I confirm that to the best of my knowledge:

The above information is correct and that this is a full description of the ethics issues that may arise in the course of my research.



















Name:

Date:

Please submit your completed form to:

ID		Task Mode	Task Name	Duration	Start	Finish	'22 W T F S
1			Collect material relating to research's question and objectives	1 day	Thu 03/03/22	Thu 03/03/22	
2			Complete research proposal	5 days	Fri 04/03/22	Thu 10/03/22	
3			Milestone 1 [10-03]: Get feedback from the Tutor about the research proposal	1 day	Thu 10/03/22	Thu 10/03/22	
4			Produce project plan	3 days	Fri 11/03/22	Tue 15/03/22	
5			Writing literature review and represent the findings in term of hypothesizes	2 days	Tue 15/03/22	Wed 16/03/22	
6			Check project progress: research proposal, plan, literature review, hypothesis	5 days	Wed 16/03/22	Tue 22/03/22	
7			Preparation for primary research (to confirm the findings in literature review or clarify the questions might arise after the	2 days	Tue 22/03/22	Wed 23/03/22	
8			Milestone 2 [24-03]: Get feedback from the Tutor about the plan of primary research	2 days	Thu 24/03/22	Fri 25/03/22	
9			Milestone 3 [26-03]: Get feedback from the Tutor about the result of literature review	3 days	Sat 26/03/22	Tue 29/03/22	
10			Conducting the primary research	13 days	Wed 30/03/22	Fri 15/04/22	
11			Milestone 4 [16-04]: Represent the findings in primary research and get feedback from Tutor	1 day	Sat 16/04/22	Sat 16/04/22	
12			Writing assignment 1 which contains LO1, LO2	6 days	Sun 17/04/22	Fri 22/04/22	
13			Milestone 5 [22-04]: Submit assignment 1 - Final	1 day	Fri 22/04/22	Fri 22/04/22	

Project: Project1
Date: Sat 05/03/22

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only	