UNIVERSITY OF BUEA
---
FACULTY OF ENGINEERING AND TECHNOLOGY
---
DEPARTMENT OF COMPUTER ENGINEERING
---


REPUBLIC OF CAMEROON
---
PEACE-WORK-FATHERLAND
---

**COURSE TITLE:**

INTERNET PROGRAMMING (J2EE) AND MOBILE PROGRAMMING

**COURSE CODE:**

CEF440

# REPORT ON TASK 2

GROUP 20


| | |
|---|---|
| TIOKENG SAMUEL | FE19A110 |
| KUE GILLES | FE22A235 |
| LUM BLESSING N. | FE22A239 |
| NWETBE LORDWILL | FE22A285 |
| TALLA TIZA | FE22A304 |


COURSE INSTRUCTOR

DR. NKEMENI VALERY

## *TASK 2: REQUIREMENT GATHERING*

**Introduction:**

Requirement gathering is the process of collecting and defining the needs and expectations of stakeholders in a project particularly in software development. It involves various activities aimed at understanding what the end users require from a system. The activities include;

**a) Identification of stakeholders:**

A stakeholder in this context is any individual, group or organization that

- has direct interest in the project
- Can affect or be affected by the mobile application implementation
- Has influence over or is influenced by the project's success or failure.

We identified 2 main stakeholders:

- **Mobile network operators which are the primary stakeholders** who will use the collected data for:
  - Network optimization
  - Customer experience management
  - Decision-making
  - Proactively addressing network issues
  - Enhancing user satisfaction.
- **Mobile network subscribers (end users) which are the secondary stakeholders** who will:
  - Provide feedback through the app
  - Rate their experience
  - Have their network usage metrics collected
  - Potentially benefit from improved service quality

**b) Requirement gathering techniques:**

These are methods used to collect information from users for building and assessment of the app.

- **Brainstorming:**
  Though our app is technology based, not everyone is familiar with terms such as latency, jitter, packet loss, bandwidth…. etc. We had to find a way to simplify these complex terms to make every user inclusive. Next, we decided on which questions to include in surveys, questionnaires, focus groups, interviews …... etc.
- **Online survey:**
  We conducted an online survey using simple terms to include every individual irrespective of their level of education. We included questions such as:
  - What age group the users belong to.
  - What mobile network(s) operators do they use.
  - How satisfied are the with the network service provider?
  - What are the issues they faced with the network service provider?
  - How frequently they face these issues.
  - Have they ever reported these issues and how satisfied were they with the responses?

- Their willingness to use and app to track performance metrics and many more questions which will be discussed in the data collection discussion.

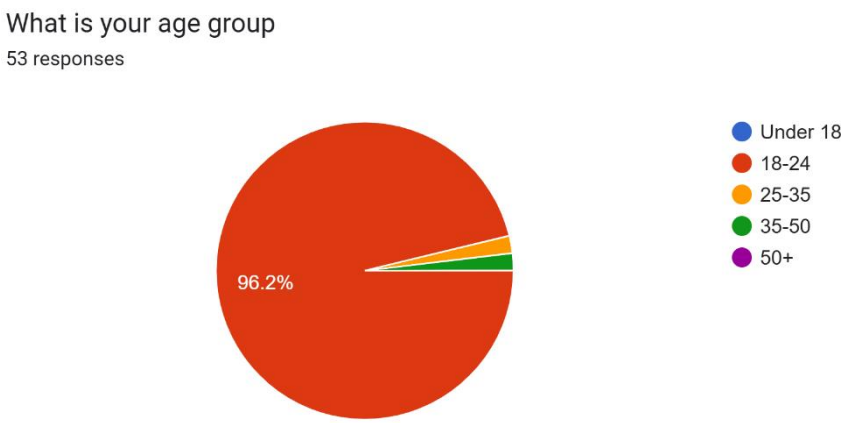
From here we were able to get suggestions from various users.

- **Focus groups:**
  Each group member assembled a small group of potential users to discuss on their expectations of the app.
- **Conducting interviews.**
  Following the responses from the online survey, we discovered that most responses were from youths. So, we decided to conduct interviews with the elderly to get their feedback (40+). We did not only focus on the elderly but with youths too. Interviews permitted us to actually see the emotions and to witness how the users feel about the network issues in their respective locations.

**c) Data gathering:**

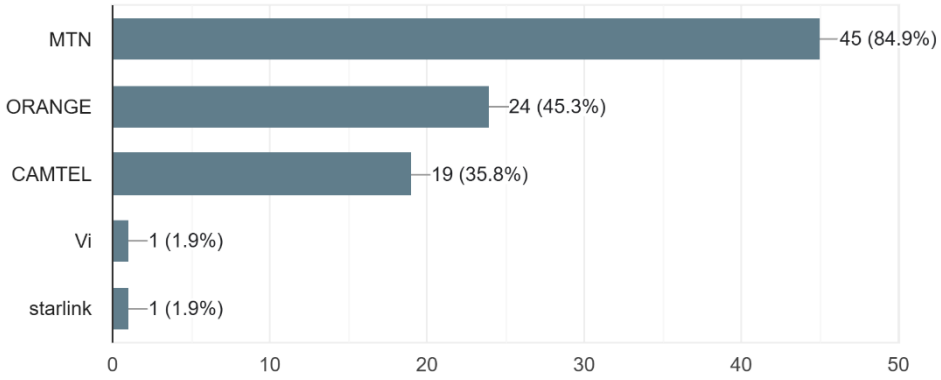
This refers to the information collected from the users based on the requirement gathering techniques.

Here is the link to our online survey:
Collection of user feedback to improve network performance - Google Forms.
Here is the data we collected based on the survey:

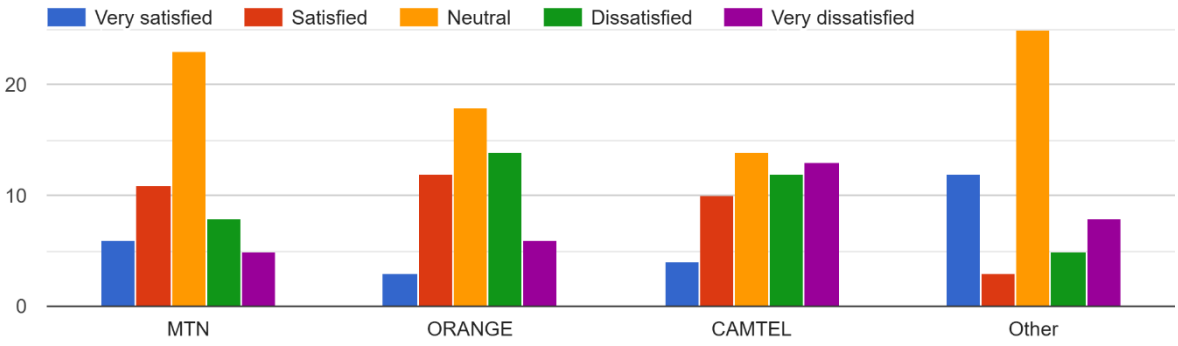


What mobile network(s) are you currently using

53 responses

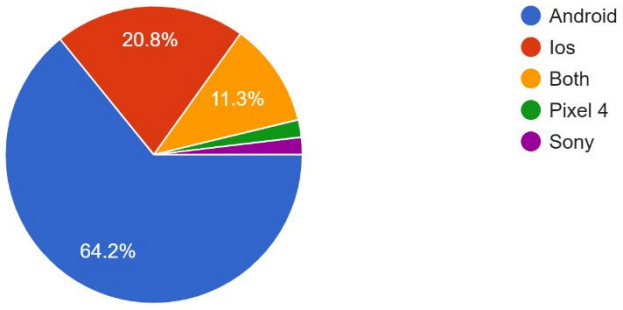



How satisfied are you with your netwrok



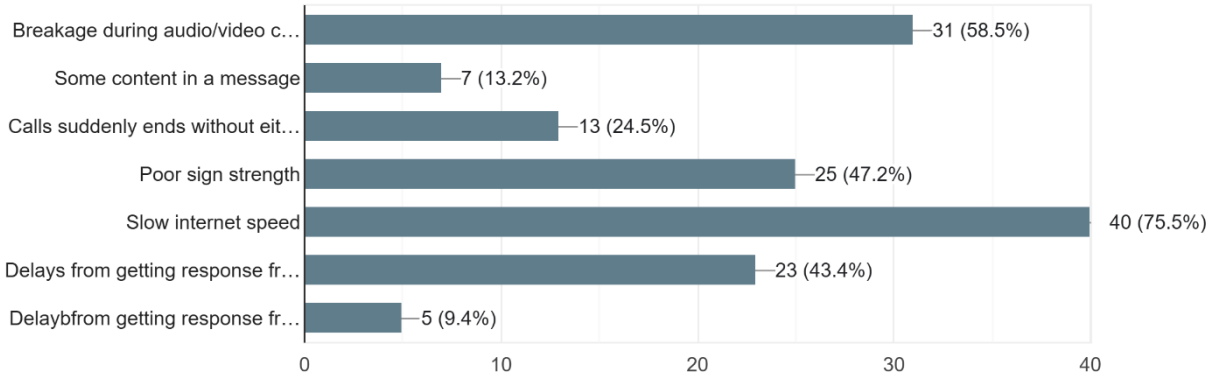

What type of phone do you use?

53 responses



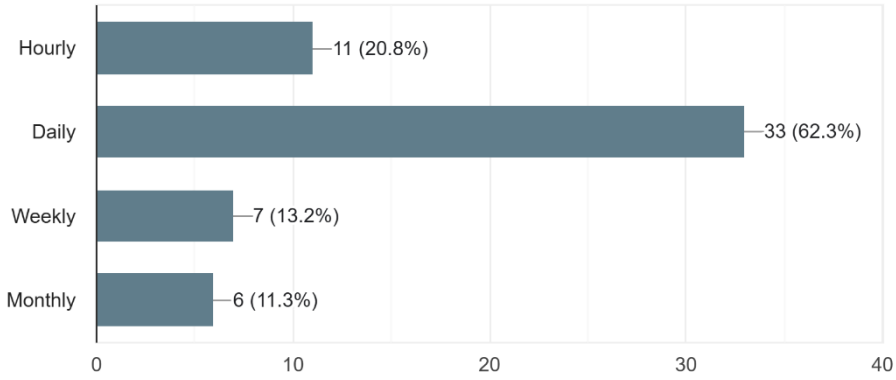
## What kind of issues do you face with your network

53 responses



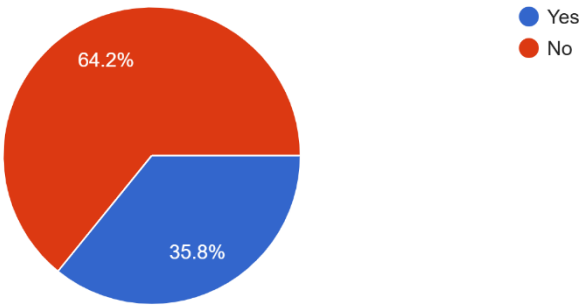

## How often do you face this issues

53 responses



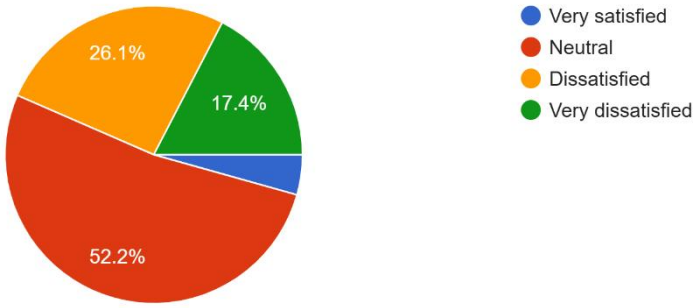

## Have you ever reported any issue to the network provider

53 responses



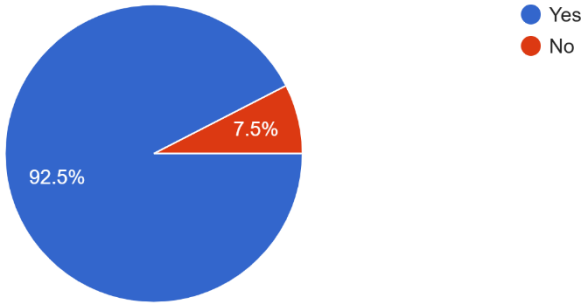
If yes, how satisfied were you with the response

46 responses



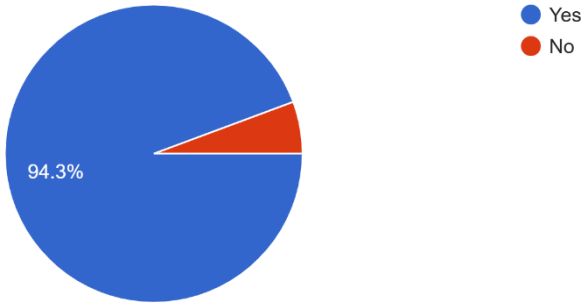

Would you be comfortable with an app running in the background to measure network performance data if you know it would improve network quality in you area

53 responses



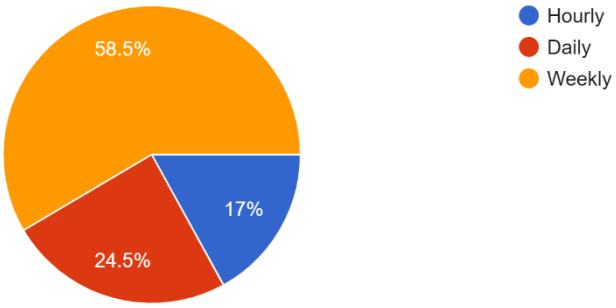

Is your network quality influence by time/location

53 responses



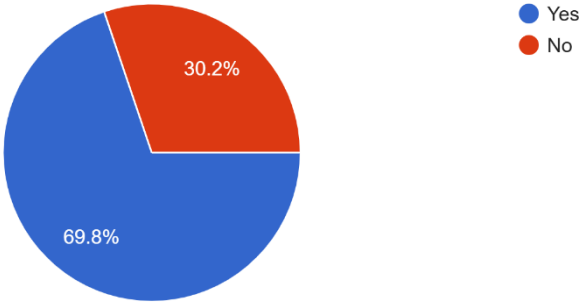
How often do you want the app to remind you to input feedback to help improve network quality in your area

53 responses




Do you want the app to have an option to delete your data or feedback at anytime?

53 responses




Do you have any suggestions for the app?

The App should be accessible to IOS users
Let it be able to detect scammers
It should weight very light on RAM No adds
It'll a good idea if it's made simple, straightforward and easy to use
Should help improve the data speed relatively
The app shouldn't take a lot of space.
It could be a great idea especially if it works for all networks
Real time notifications
My suggestion is that let the app be able to be accessible everywhere u can go worldwide rather than specific places and it should be very fast and reliable and more to that let it not be influence by physical factors like climate, topography and more
Free data donations weekly
If possible, I want to be able to stream matches online without breakage
Great UI, simple to use
The app should be in the long run
The app should not be battery draining as it runs in the back
Let it function well.

It should be linked to the various ISPs to permit them to get real-time feedback on their network system, also feature to track traffic of other apps using the network and their usage rate
Simple and clean user interface.

**d) Data cleaning:**

This involves ensuring the data collected from stakeholders are accurate, consistent and relevant.

- Verify if the data collected is accurate
- Remove duplicates responses to ensure that each stakeholder's holders' input is uniquely represented
- Filtering out irrelevant information
- Organise the data in a structured format
- Validate collected requirements to ensure they are clear, actionable and achievable within the time scope.
- Maintaining records of the cleaned data and the rationale behind any changes made during the cleaning process.

**e) User reluctance assessment:**

This refers to the process of evaluating the hesitations or resistance that users may have towards adopting a new system, technology or change in processes. Here are some key components:

- **Identifying sources of reluctance:**
  - Fear of change
  - Lack of familiarity
  - Perceived complexity.
- **Gathering feedback:**
  Thanks to the online surveys, focus groups and interviews, the primary concerns were:
  - Tracking of location
  - Drainage of battery
  - Consumption of space
  - Consumption of data
  - Incompatibility with iOS users
  - Excessive demand of feedback
- Evaluate the impact by assessing how reluctance could impact the overall success of the project.
- Develop mitigation strategies
- Continuously monitor user feedback during and after implementation to address any ongoing reluctance.

To conclude, effective requirement gathering sets the foundation for successful project execution and helps minimize understandings and scope creep.

| Group member | Matricule | Contribution |
|---|---|---|
| TIOKENG SAMUEL | FE19A110 | Brainstorming, implementation of requirement gathering techniques |
| KUE GILLES | FE22A235 | Brainstorming, implementation of requirement gathering techniques, power point |
| LUM BLESSING N. | FE22A239 | Brainstorming, implementation of requirement gathering techniques, report |
| NWETBE LORDWILL | FE22A285 | Brainstorming, implementation of requirement gathering techniques, power point |
| TALLA TIZA | FE22A304 | Brainstorming, implementation of requirement gathering technique |