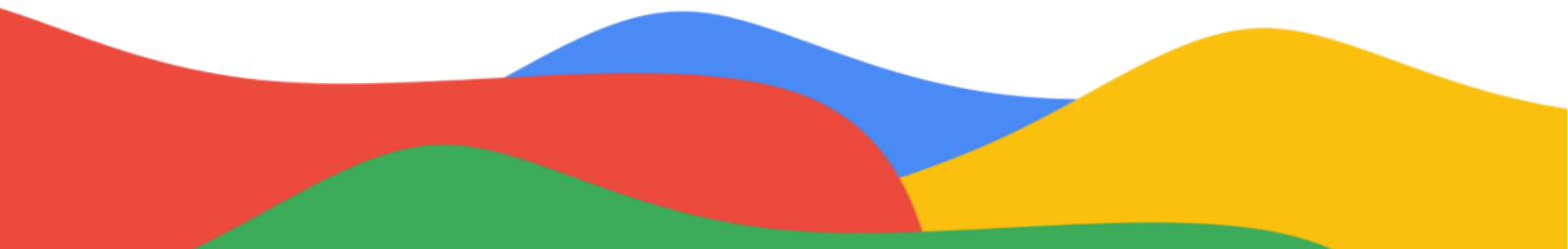# *Hinabi:* A Unifying Design Interface for
Social Welfare Services

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Hinabi: A Unifying Design Interface for Social Welfare Services

Everyone is affected by the pandemic, but the magnitude of how people are affected varies. Due to most of them having limited mobility, people with disabilities are struggling with accessing basic social services and immediate government assistance (Espinosa, 2020). Mobile applications show great potential for making these government services accessible to sectors that are "traditionally underserved" (Ganapati, 2015). *Hinabi* weaves these government social services together into a single unifying app that's convenient, user-friendly, and accessible to all Filipinos. Adobe XD is used in designing the interface, and Flutter in implementing the design. The philosophy behind *Hinabi* is coherence and simplicity -- making its features easy to use and comprehend. It leverages on inclusivity and usability -- making it a powerful tool for the Filipino community to have access to basic social services -- a right everyone should have. In line with Ganapati's (2015) recommendations, we also recommend that government APIs should be made available to pave the way for citizen-oriented applications that are socially useful.

Hinabi: A Unifying Design Interface for Social Welfare Services

Problem Statement

This project taps on inclusivity and accessibility to basic social welfare services such as health insurance, loans, and pension for those who are technologically adept (i.e. senior citizens) and for those who may be dealing with language and comprehension problems. This falls under reducing inequality (SGD 10).

Investment, Infrastructure and Innovation (SDG 9) are crucial drivers of economic growth and development. Bridging this digital divide is crucial to ensure accessibility of public information and share knowledge to the beneficiaries of the government services (United Nations, 2020).

Prior to the pandemic, some government agencies have provided outlets for their beneficiaries to avail its services; however, the usability on such platforms that are made available does not conform to a consistent and coherent design framework that results in an overhead with regards to the accessibility of such services. A consistent design framework is necessary for linking users to accessible public information and relevant document-filling.

Rationale

Interfacing a new application within a web platform can take different degrees of how easy it is for users to accomplish a task the first time they encounter the interface, the higher the cognitive load of such an interface the more difficult it ends up on the user's side; while maintaining a good intention for providing such platform, the intention must remain still for the end user (Joyce, 2019).

The project aims to have a proposal for a consistent design framework of applications provided by government agencies to support an intuitive design pattern that

increases the learnability of the application -- which improves its ease of use. In such a way, it bridges the gap between government agencies and the beneficiaries.

Significance of the Project

Everyone is affected by the pandemic, but the magnitude of how people are affected varies. According to Teddy Kahil, the President of the Regional Federation of PWDs, unlike people with no disability, their sector is "struggling in accessing the immediate assistance and services of the government" due to them mostly having limited mobility (Espinosa, 2020). Most of them have also lost their jobs and have little to no access to basic social services due to the pandemic. Mobile applications show great potential for making these government services accessible to sectors that are traditionally "underserved" (Ganapati, 2015).

Since Investment, Infrastructure and Innovation are crucial drivers of economic growth and development; bridging the gaps between the digital divide remains relevant for sustainable development. We have funded the government to cater services for social welfare workers and beneficiaries, keeping that in mind such services should be accessible and usable for the intended beneficiaries and contributors.

Having a poor design choice and inconsistent design framework bounds a good communication flow between the users and the application that ought to provide seamless virtual transactions; as a result users are presented with a more inconvenient option which is to go to the site themselves and handle such transactions in person. The COVID-19 pandemic has presented the need to have convenient virtual transactions, and we propose to make such transactions seamless.

There is an existing app in Google Playstore called *Lingkod Bayan App* which directs the user to links to government services (e.g. Police Clearance Application, DFA Passport Application, DTI Business Name Registration, etc.). The application is not affiliated with any government agency and provides only the collation of the links to the already existing websites of the government agencies. This project aims to configure and provide a design framework for a more useful application which not only directs to links, but also provides a

user-friendly interface for the beneficiaries. **In summary, this project seeks to kickstart a call for solutions towards (1) improving the user experience of Filipinos who struggle with making necessary government transactions involving their health insurance, loans, and pension; and (2) giving way to a more inclusive and sustainable development of the Philippine society.**

In line with Ganapati's (2015) recommendations, we also recommend that government APIs should be made available to pave the way for citizen-oriented applications that are socially useful.

Market Study

In order to curb the spread of coronavirus, the government has imposed stringent measures to reduce mobility and limit transportation. Although essential tasks or transactions are allowed, this does not necessarily dispel the fear and worry of the Filipinos to go out of their homes. This makes the switch to the digital world almost an imperative.

However, despite the presence of some websites and applications to be able to conduct some government transactions, some lapses with the design hinders the users to fully maximize them. The aim of this project is to configure these functions to be more user-friendly, accessible, and useful to the Filipino market, even those who may have language and comprehension problems and even senior citizens who are not technologically adept.

The target demographics for the design framework are individuals, age 18 years old and above, who want to make their necessary transactions to be more seamless, convenient, and efficient. They may be individuals who have existing accounts to the agencies providing several welfare services (e.g. SSS, PhilHealth, Pag-IBIG, etc).

Innovation Description

We plan to unify the design framework for social welfare services. The conceptual model for unifying the design framework of SSS, Pag-IBIG, and PhilHealth shall be based on

their common functionality which caters the social welfare beneficiaries. Specific web-pages will be compiled in a cleaner format that reduces cognitive overhead for *mapping -- this refers to the relationship between controls and their effects in the world. Nearly all artifacts need some kind of mapping between controls and effects* (Norman, 1988) -- through the desired web-page.
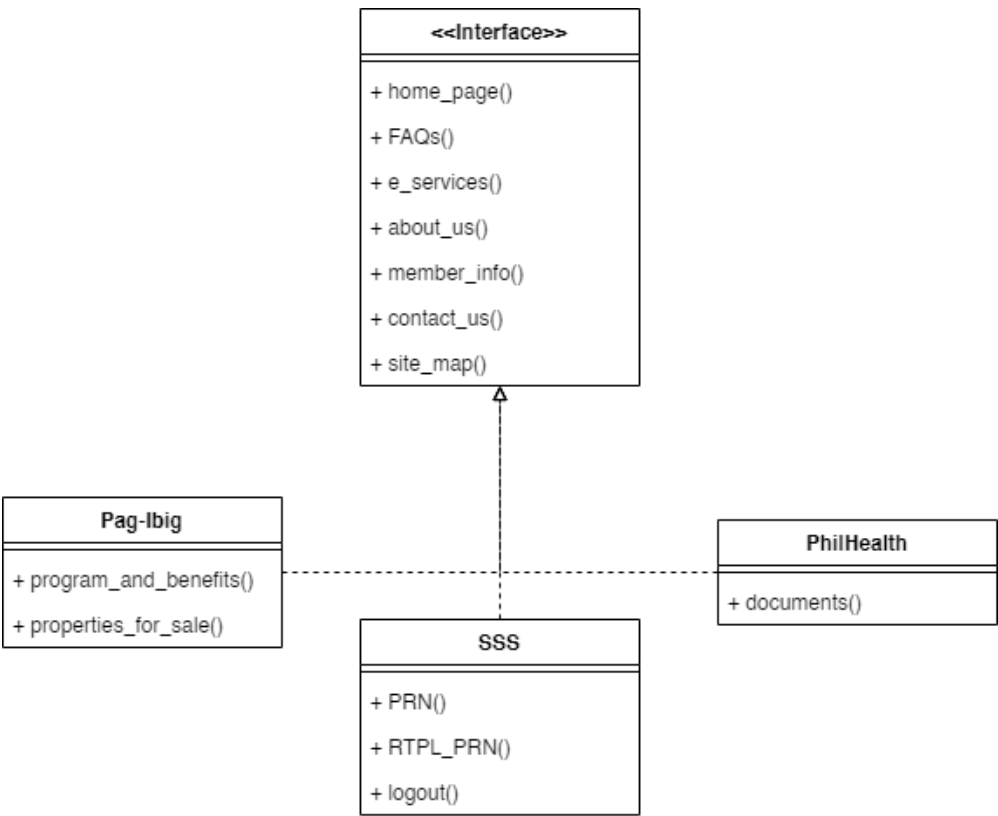
```
                        ┌─────────────────────┐
                        │    <<Interface>>    │
                        ├─────────────────────┤
                        │ + home_page()       │
                        │ + FAQs()            │
                        │ + e_services()      │
                        │ + about_us()        │
                        │ + member_info()     │
                        │ + contact_us()      │
                        │ + site_map()        │
                        └─────────────────────┘
```

Pag-Ibig
+ program_and_benefits()
+ properties_for_sale()

PhilHealth
+ documents()

SSS
+ PRN()
+ RTPL_PRN()
+ logout()

Figure 1. Class diagram for concept mapping of site features

The Flutter framework now supports a broader array of distributions and support for different devices, the implementation of our application calls for the need to refine the front-end and compile our application in Dart, instead of putting together hyperlinks.
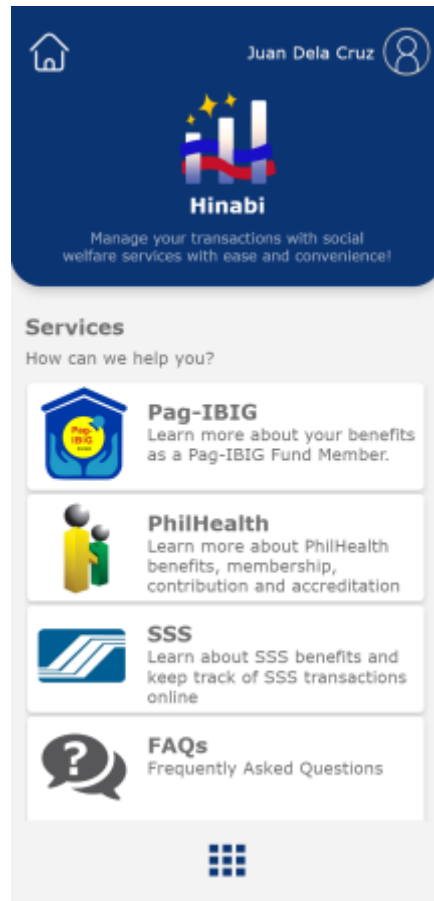
Figure 2. Program interface of the proposed mobile app (rough draft)

The sample interface of the home page of *Hinabi* **App** is shown in figure 1, in which the user can access the services provided by the following social welfare services: PhilHealth for health insurance, Pag-IBIG for housing loans, and SSS for pension.
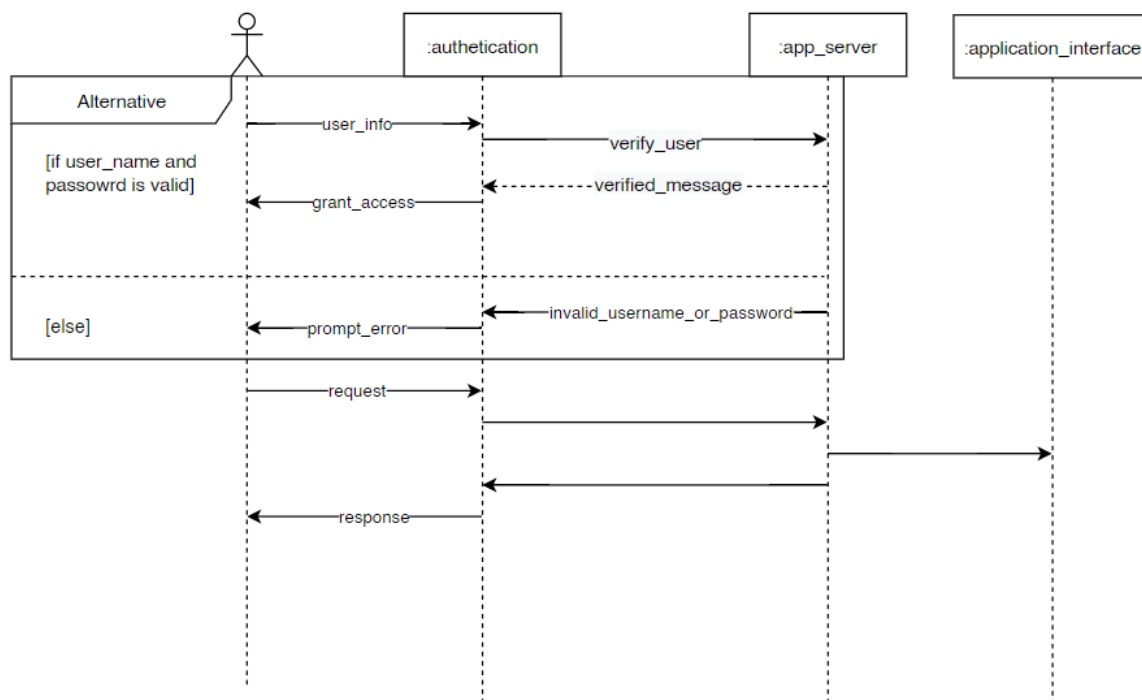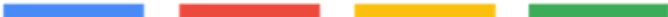
Figure 3. Sequence diagram of working application transactions

Combining these services in one application provides not only an easier access to one or more agencies, but also a better management of their accounts, both for members, and non-members of an agency who wish to register in a program.
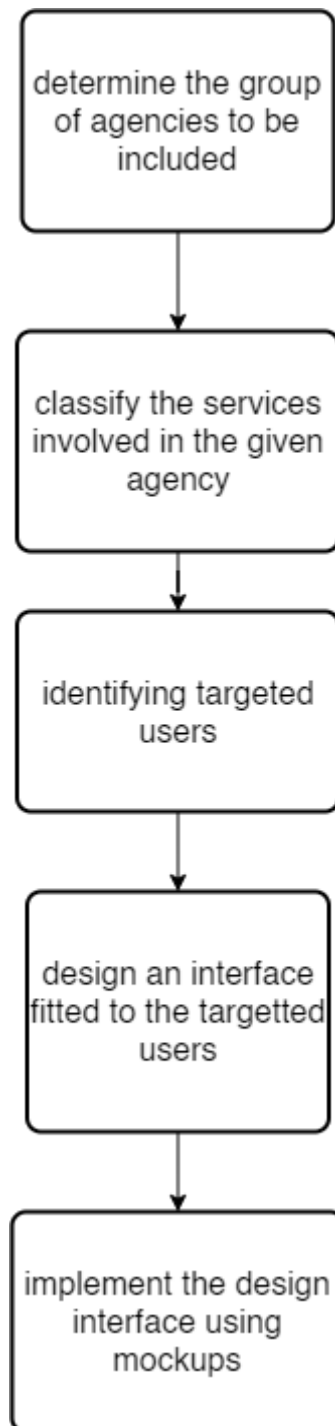
Methodology

We plan to have a conceptual representation for the group of functionalities across different social welfare platforms and group them together according to common features, this improves the mapping and simplifies the interface -- lessens cognitive overhead. We will ensure that the available online or mobile services of the involved agency will be taken into account, making the processes more understandable to users.

Identifying the targeted users will provide us the basis of our design - an interface that would be most convenient and efficient to these users. Initially, the targeted demographics are 18 years old and above. We intend to make basic social welfare services such as health insurance, loans, and pension be more inclusive and accessible to senior citizens who might not be technologically adept and those who may have language and comprehension problems and other issues. Adobe XD is used in designing the interface, and Flutter in implementing the design.

Process Flow

determine the group of agencies to be included

↓

classify the services involved in the given agency

↓

identifying targeted users

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design an interface fitted to the targetted users

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implement the design interface using mockups

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