

International School

Capstone Project 2

CMU-SE 451

**Project Proposal**

**Version 2.0**

**Date: 13/03/2021**

**ViVu - The smart travel system supports with chatbot and short video social network**

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Name Signature Date

#### PROJECT INFORMATION

|  |  |  |  |
| --- | --- | --- | --- |
| **Project acronym** | ViVu | | |
| **Project Title** | The smart travel system supports chatbot and integrates short video social network | | |
| **Start Date** | 22 Feb 2021 | **End Date** | 30 May 2021 |
| **Lead Institution** | International School, Duy Tan University | | |
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**REVISION HISTORY**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Comments** | **Author** | **Approval** |
| 1.0 | 20/02/2021 | Initial Release | All members |  |
| 1.1 | 04/03/2021 | Update 4,5 | All members |  |
| 2.0 | 13/03/2021 | Update after reviewed | All members |  |

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# Introduction

## Purpose

* + - Build a travel application that supports smart chatbot in searching tours, travel places by both message and voice. In addition, travel application also develops video social network, identify harmful images, voucher redemption, integration Google Map and Google AdMob.
    - Provide solutions for business needs and show the overview of system context and architecture.
    - Identify resources, time, budget, implement actual projects and ensure on schedule and budget.

## Scope

* + - Offers travel solutions to travelers in the process of finding places, selecting and paying for their favorite tours.
    - As a means to share travel moments, earn bonus points and voucher redemption.
    - Detect and identify harmful images, videos when user share the moment.
    - Interaction between users and map of tourist attractions right on the application.
    - The focus of the project is on building an intelligent chatbot and activities related to the selection of tours. Meanwhile, the management functions are built in to create a panorama of the application.
    - Interact with external systems to support payments and build smart chatbots
    - The project was carried out within 14 weeks with a resources of 4 members.
    - The financial estimation for the project is at a budget limit of $5040

## Project goals

Based on human resources, allowable time and budget, we will build a system using smart chatbot for tourists to support for their trip.

# Problem Definition

## Business Problems

* + - In the socio-economic development orientation of each country in the world, attention is paid to the development orientation of the tourism industry economy. In recent years, the tourism industry has been developed widely around the world. Tourism has brought many jobs for many people as well as high incomes. Therefore, a number of applications, websites and research works have been developed such as: Booking.com, HotelsCombined.com, Agoda.com, Tripadvisor,

.. have shown the potential development of the tourism industry. However, some applications and websites currently have not applied modern techniques and automation to assist tourists in choosing the smartest and most suitable location.

* + - Tourists often wonder when choosing a suitable tour and want to explore the best places. They need psychological guidance, quickly and effectively. Meanwhile, the customer care and support department from existing travel apps is cumbersome and time consuming.
    - Tourists also tend to share travel moments with relatives, friends and family on a journey, while social travel is a necessary condition to be able to meet those desires. their preferences. However, the request for a social network, issues related to copyright, malicious content need to be handled strictly, a system should be used to detect and remove these content.
    - In addition, travelers also want an application with many promotions, rewards, and voucher redemption to help them easily make decisions on travel options that suit their budget.

## Requirements

### Tourist Requirements

* + - * Solving the problem of choose the right tour for tourists
      * Tourists create their own travel itinerary.
      * They are not familiar with where they are going, do not know where to go to, where to eat, so they need someone to introduce them to their destination.
      * They want to find, book and pay for their travel easily at the best cost.
      * They not only explore more tourist places with the help of a smart chatbot, but also can interact with it by their voice.
      * They need a social network to share interesting travel moments.
      * They need an application to locate the places they will visit and what the route will look like.

### Staff Requirements

* + - * Our staffs can add, remove and update all tours, tourist attractions and promotions

### Manager Requirements

* + - * Manager of the organization can view profit reports.

### Admin Requirements

* + - * Administrators need to be able to manage user accounts.
      * Adminstrator need to manage vouchers, reward points, only allow valid photos and videos on the application.

# Current Status of Art

## Chat bot

Along with the development of technology, chatbots have gradually become essential to industries including tourism. The current chatbots can be classified according to the following 3 parts:

##### Classify chatbot by service

* + - * Chatbot for sale
      * Chatbot for customer care

##### Classification of chatbot according to the artificial intelligence platform should develop chatbot

* + - * API.AI
      * WIT.AI
      * IBM Watson

##### Classification of chatbot based on user experience quality

* + - * Scripted chatbot (menu / button format)
        + Advantages:

It will not happen that the bot does not understand the user's intent.

Finding insights is easier.

The topics given for the user to choose from are finite and the user is led by the script so the 2-way interactive information is accurate.

The compulsory questions must be clearly oriented from the beginning, covering the case

Creating and building the Chatbot Menu / Button scenario does not require an AI with high intelligence.

Building scripts is the most important step, you can direct the customer and direct the conversation with the customer.

Customers can also immediately understand the question and choose the answers they want.

Gathering information and organizing data is also easier

* + - * + Disadvantages:

Users are only allowed to choose the given answers

The user is guided by a limited selection of answers

With the choices available that are displayed as buttons and limited by scripting, the bot is less likely to surprise the user.

If you don't build the script carefully and properly, it could make the conversation between your chatbot and the user more like a sales experience than a conversation.

Chatbot Menu / Button directs users to finite options and limits the user's freedom when chatting.

* + - * Chatbot NLP
        + Advantages:

Users can ask any questions, including questions that are not related to the t or business.

Make users surprised, surprised and curious because the bot has the ability to communicate in natural language. The user will feel like they are being taken care of by a customer service representative.

Chatbot NLP allows users to interact with a chatbot like they would be a friend or family member through a messaging or voice interaction app. This gives users the freedom to ask whatever they want without knowing what the chatbot's response will be.

Chatbot NLP allows chatbots to respond intelligently (or at least try) so that users can get the value they are looking for from the chatbot.

Depends on the artificial intelligence platform that the NPL Bot is built on that platform

The chatbot NLP is built on a poor AI platform that may not understand the user's intentions. Therefore, the Chatbot NLP responds in a way that is irrelevant to the user's intended conversation.

* + - * + Disadvantages:

The bot reads-understands keywords in the user's messages. The level of understanding is 60-70% of the conversation.

Users may get an ambiguous response and discontinue asking questions due to lack of suggestions and bots not providing correct information.

* 1. **Social Network**

Social media is a useful communication channel to connect between businesses and customers, especially in today's tourism industry. Some widely popular social networks such as Facebook, Instagram, Myspace, Twitter, Pinterest ... have become an indispensable tool for travel companies to promote, guide and Help travelers around the world choose a destination and consider their budget before long trips.

*Advantages:*

* Stimulate travel demand: Today, almost everyone goes on social media to share everything about their life. This has had a huge impact in shaping the demand for tourism from its user community.
* Convenient to find information: The Users can search for travel agents, buy cheap flight tickets, travel combos, ... quickly. Based on search engines provided by social networks, along with specific strategies, companies can easily build links with groups of people with travel needs. Discussing ideas, planning travel with clients is a great approach.
* Worth of Mouth Marketing: Know the quality of tourism services through seeing reviews from friends, relatives, and travel bloggers

Social media is the future of tourism. Advances in technology will lead to many changes in product promotion and marketing. But with opportunities always come challenges.

*Disadvantages*

* Create an open platform for participants to express their opinions
* Reasonable moderation
* Build activities based on groups of participants
* Organize award competitions
* Post funny and entertaining content in attractive formats

## Compare with current product

* + 1. **Social Network**

A few websites / apps to mention are:

* mytour.vn (https://mytour.vn)
* Vietravel (https://www.vietravel.com)
* KLOOK (https://www.klook.com/vi/)
* divui (<https://divui.com>)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Characteristics | mytour.vn | Vietravel | KLOOK | Divui | viBOTour  (Old) | ViVu  (New) |
| Consulting  support |  | + | + | + | + |  |
| Promotions | + | + | + | + | + | update |
| Diverse and  quality tours | + | + | + | + | + | update |
| Online payment | + | + | + | + | + |  |
| Real reviews  from customers | + |  | + | + | + |  |
| Support chatbot |  |  |  |  | + |  |
| Support creating tours |  |  |  |  | + | update |
| Multi languages support |  | + | + | + | + |  |
| Check tour tickets for checkin | + | + |  |  |  | + |
| Upload short video in social network with checking harmful content |  |  |  |  |  | + |
| Earn points for redeeming rewards |  |  |  |  |  | + |
| Display advertisement |  |  |  |  |  | + |
| Map checking places |  |  |  |  |  | + |

* + 1. **Social Network**

The most popular **social media** platforms for travel business

* Facebook
* Gody
* Instagram
* Astra
* TripAdvisor

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Facebook | Gody | Tiktok | Astra | TripAdvisor | ViVu |
| Support ticket booking |  |  |  | + | + | + |
| Content moderation | + |  | + | + | + | + |
| Popularity in Vietnam | + | + | + | + |  | + |
| Connectivity and interactivity | + |  | + | + |  | + |
| Multi-platform support | + | + | + | + |  | + |
|  |  |  |  |  |  |  |

## Technology solution

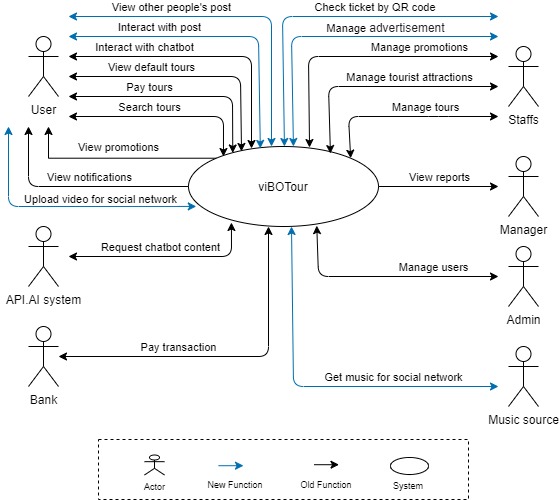
* The smart chatbot uses NLP technology to chat and understand travelers' wishes. From there, propose a tourist destination that matches their wishes and aspirations.
* As mentioned above, Chatbot Menu / Button and Chatbot NLP have their own bad points. However, combining the two types above will help promote all the advantages as well as limit the main shortcomings of these two types of chatbots. These are also the 2 main chatbot technologies of this product. While Chatbot processing natural language is still learning how to understand human words, the Chatbot Menu / Button is more efficient and more cost-effective. Currently, most businesses are choosing Chatbot Menu/Button to reach customers. But with certain advantages of both types of chatbot, you should combine both of these chatbots to bring the best experience to tourists. And also a way for you to gather maximum useful information from them.
* Create a new, friendly, and closer emoji set to Vietnamese people, thereby creating sympathy and introducing Vietnam to international friends
* Social networks allow users to interact with each other, share censored videos.
* Moderates posts using image recognition technology

# Engineering Approach (including solution alternatives)

## Solution Ideas

* + - Based on resources, an allowable time and budget. We will build a chat bot system to best support tourists by both text and voice. In addition, the system also provides payment via e-wallet applications or banks to help tourists have a better experience at our app and a social network where tourists can share great moment during their travels.

## System Context Diagram



## System Context Description

#### User:

* + - Request Login/Logout to the system, System check authentication and grant access to tourist roles.
    - Request the system to display tour details and view the tour they booked.
    - Send a message or voice to the chatbot if there is any confusion in their tour. Chatbot can suggest the most suitable location or tour for tourists.
    - Search for tours that tourist need
    - They can see their shopping cart and proactively pay the app for tour bookings.
    - Users can update their travel videos on our social network
    - Users can watch videos of everyone's travels posted on our social network
    - Users can interact with posts such as comments, express their feelings through icons

#### Bank:

* + - The bank acts as an intermediary to help tourists pay for the service.

#### API.AI System:

* + - The API.AI system supports Google's Dialog Flow chatbot integration.

#### Staffs:

* + - Request Login/Logout to the system. System check authentication and grant access to staff roles.
    - Our staff can add, delete and update information on the website includes: tours, promotions and places.
    - Manage advertising of brands

#### Manager:

* + - Request Login/Logout to the system. System check authentication and grant access to manager roles.
    - Manager of our organization can see reports.

#### Administrator:

* + - Request Login/Logout to the system. System check authentication and grant access to admin roles.
    - Managing the website includes: tourist information which helps the system work well.

#### Music source:

* + - Get music for social network functionality.

## Technical Proposed

#### Technical to develop:

* + - Programming Language: JavaScript, Python
    - Frameworks / Libraries:React, React Native, Redux-Saga, Express, NodeJS, Bootstrap 4.0, JQuery,...
    - Database Management System: PostgreSQL
    - Chatbot: Dialog Flow
    - Web server: Apache 2.4
    - Map API:
    - Weather API: OpenWeather API

#### Environment:

* + - Web browsers: Google Chrome.
    - Android Mobile, IOS Mobile
    - Operating systems: Microsoft Windows 10, Linux

#### Another:

* + - Management tool: Jira, Slack
    - Manage Source code tool: Git, Bitbucket
    - Coding tools: Visual Studio Code, Android Studio

## Other Constraints

* + - Resource: 4 people.
    - Budget: Limit $3360
    - Time: The project must be completed within 14 weeks.

# Project Constraints

|  |  |  |
| --- | --- | --- |
| **Constraint** | **Constraints Description** | **Guidelines for Acceptance** |
| **Information sharing** | Information sharing is a big concern. The impact of information will affect many fields such as economy, culture, society, education, ... The shared content must be carefully checked and filtered to limit to the lowest level. Risks may occur when sharing information such as: harmful content, age issues, gender, violence, ... | According to Decree No. 15/2020/NĐ-CP. The Decree takes effect from April 15, 2020  • A fine of 50-70 million VND for storing and transmitting false or false information, slandering, distorting, or hurting the reputation of an organization and the honor and dignity of an individual. A fine of VND 50-70 million is also applied for acts of providing information promoting customs, superstitions, superstitions, lewdness, depravity, and is not consistent with the nation's fine traditions and customs.  • Penalties for posting, distributing, transmitting or using images of Vietnam maps that do not fully show or misrepresent national sovereignty will be fined 50-70 million VND. Acts of advertising, propagating, buying and selling banned goods and services are also subject to a fine of 50-70 million VND  • For violations of the regulations on the responsibility to use social networking services, the acts of abusing social networks to provide or share false, false, misrepresentation, slanderous information. Violation of the reputation of agencies, organizations, honor and dignity of individuals will be fined 10-20 million VND.  Acts of taking advantage of social networks to provide and share information that meticulously describe slashing, killing, accident, horror, horror, and promoting vulgarities, superstitions, superstitions, lewdness, hills depraved, incompatible with the fine traditions and customs of the nation, the fine nation will be fined 10-20 million VND. |
| **Ethical** | The ethical constraints of a social network cover many aspects of dignity defenses, data use, law and professional ethics issues. Accordingly, products must meet information security criteria and ensure data safety in the application. To achieve ethical criteria, attention should be paid to the content, the image, and the applied culture. | + Absolute security for the user's personal data in the application, not using with unauthorized purposes, disrespecting user data.  + Build clean applications with safe content, do not contain offensive, cultural and unethical images  + Pay special attention to gender, religion, ethnicity, and age issues. Avoid content that causes violence or disagreement to ensure a cultural product.  + The information security system ensures against attacks that cause information leakage.  + Comply with the regulations and laws of the state for a commercial product and social network. |
| **Intellectual property rights issues** | The system using text, image, video and music content will have many potential risks related to intellectual property rights as stipulated in legal documents.  In order for the product to be legally maintained and marketed, the project team must conduct a thorough and careful study of copyright related content. The project team must early learn potential issues related to intellectual property rights, and solutions and take action when something goes wrong. Application-oriented covers copyright risks to minimize possible damage. | Accordingly, some issues of intellectual property law need to be addressed as follows:  + Organizations and individuals that directly or indirectly use phonograms or video recordings according to the provisions of Clauses 1 and 2, Article 33 of the Intellectual Property Law shall pay royalties, remuneration and material benefits to owners. owners of copyrights, related rights owners.  + Collective representative organizations of copyrights and related rights can negotiate, agree, authorize negotiation and collect royalties, remuneration and material benefits according to the provisions of law. The distribution ratio of royalties, remuneration, and earned material benefits shall be agreed upon by these organizations.  + Authorized collective representative organization of copyrights and related rights is responsible for building the list of members, works, phonograms, video recordings, broadcasts of members and is responsible for signing contracts co-authorize collective representative organizations of copyrights and related rights to authorize representatives to negotiate agreements, collect royalties, remuneration and material benefits.  + The authorized collective representative organization of copyright and related rights is only responsible for negotiating the agreement on collection of royalties, remuneration and material benefits according to the list of members, works, performances, phonograms, video recordings, and broadcasts specified in the authorization contract.  Accordingly, the issue of music copyright is also a concern. The organization must make an agreement with the music owner or the music supplier to legally use the music copyright in the video. The finished product must have policies in place to engage users on copyright issues to ensure a safe, effective and legal use of information. |
| **Economic and E-Commerce** | Tour trade activities present potential challenges in terms of profession, transaction problems and business operations. As far as commercial service type is concerned, our app is in the form of commercial sales application. Our system specializes in providing tours for other domestic and foreign tourists to promote tourism and bring revenue to our organization. Our products and services must comply with the content of domestic laws on e-commerce. Business activities must be publicly disclosed, fully declared, in accordance with regulations and ensure the legitimate interests of tourists. | The commercial application should consider the following:  + Rights and obligations of parties in transactions are performed through the application.  + Traders and organizations that own the app's scope of responsibility in transactions made through this app.  + The mechanism for settling complaints and disputes between parties related to transactions is done through the application  + Application users' personal information protection policy is specified in Article 69 of Decree No. 52/2013/ND-CP.  + Measures to deal with acts of infringement on the interests of consumers in transactions made through the application.  + Online payment must establish a mechanism for customers to review and confirm detailed information about each payment transaction before making a payment.  + Information security, preventing fake information and untrustworthy information. Provide sufficient information and support state management agencies in investigating business acts in violation of the law using their application. |
| **Trade promotion activities** | Business applications that use advertising and promotion activities must be fully declared and comply with the provisions of law | + Promotion programs must be conducted lawfully, honestly, publicly and transparently and ensure the legitimate rights and interests of consumers, traders, organizations or other individuals.  + Promotion traders must ensure favorable conditions for winners to receive prizes and are obliged to settle complaints (if any) related to the promotion.  + Promotion traders are responsible for ensuring the quality of goods and services to be promoted and goods and services used for promotion.  + No conditions for customers to enjoy promotions are to give up, refuse or exchange goods or services of other traders or organizations. There is no direct comparison of its goods or services with that of another trader, organization or individual.  + Lottery results cannot be used as a result of winning or as a basis for giving or giving prizes in promotions in the form specified in Clauses 5, 6 and 9, Article 92 of the Commercial Law. |
| **Advertising activities** | Advertising services on the application will operate under the control of state law and ensure the transparency, information security and interests of all stakeholders involved in advertising activities. | Advertising on legal products is strictly prohibited by law, and advertising of illegal products is prohibited, such as:  + Goods and services banned from business in accordance with law.  + Alcohol with an alcohol content of 15 degrees or more.  + Breast milk substitutes for children under 24 months of age, nutritional supplements used for children under 06 months old; artificial feeding bottles and pacifiers.  + Prescription drugs; Non-prescription drugs but recommended by the competent state agency restrict use or use under the supervision of a physician.  + Assorted sexual products and goods.  + Hunting rifles and shotgun bullets, sports weapons and stimulant products and goods violence.  + Other products, goods and services banned from advertising shall be prescribed by the Government when arising in fact.  The following advertising contents are prohibited by law. The banned advertisement contents are as follows:  + Advertisements reveal state secrets, prejudice to national independence, sovereignty, security, national defense, lack of aesthetics, contrary to historical traditions, culture, ethics, and fine customs Vietnam.  + Advertising affects the urban beauty, traffic safety, social safety, adversely affects the dignity of the National Flag, the National Emblem, the National Anthem, the Party period, national heroes, cultural celebrities, leaders, leaders of the Party and State  + Advertising of the nature of ethnic discrimination, racism, violation of freedom of belief and religion education, gender stereotypes, and disability.  + Advertisements that use an individual's images, words and words without his / her consent Italians, unless permitted by law, offend the reputation, honor and dignity of organizations or individuals.  Advertisements with unfair competition content in accordance with the competition law paintings, violations of the law on intellectual property. |
| **Google Play Store Policies** | Putting the application on the Play Store | **Content is limited**  • Content dangerous to children  • Inappropriate content  • Financial services  • Real money gambling, games and competitions  • Illegal activity  • User-generated content  • Unapproved substance    **Impersonation behavior**  By impersonating someone else or someone else's application, a developer will mislead users and harm the developer community. Apps that deceive users by impersonating other people are strictly forbidden.  **Intellectual property**  By copying someone else's product or deceiving the user, the developer hurts the users and the developer community. Do not use someone else's product in a way that is confusing or unfair.  **Privacy, fraud, and misuse of the device**  Must be committed to protecting user privacy and providing a safe and secure environment for users. Fraudulent, malicious or intended to misuse or misuse your network, device or personal data is strictly prohibited.  • User data  • Access  • Misuse of device and network  • Fraudulent conduct  • Misleading behavior  • Make money and advertise  **Spam and minimal functionality**  At a minimum, the application should provide the user with basic functionality and give the user a sense of respect. Google Play does not accept apps that malfunction or exhibit inappropriate behavior, providing a useful user experience.    **Malware**  Malware is codes that can harm the user, their data or their device. Because malware is potentially harmful to users, Google Play prohibits apps containing malware.  **Unwanted mobile software (MUwS)**  Apps that violate the guidelines for unwanted mobile software are apps that pose a risk of harm to the user.  • Unwanted software on mobile devices  • Fraud in advertising  • Unauthorized use or mimic the functionality of the system  • Family  Before submitting a children's app to the Google Play Store, it is your responsibility to make sure your app is suitable for children and in compliance with all applicable laws.  • Design apps for kids and families  • Advertise and make money  • Other programs |
| **Sustainability** | A quality software product must cover issues from future development to maintenance and expansion. To achieve sustainability and long-term survival in the market it must achieve sustainability from the investment of resources, infrastructure, material, equipment, maintenance, ... This attribute determines the viability of a product and the possibility of its future development. | + The software development team is fully equipped with the knowledge base and expands in size and quantity in the long term.  + The associated equipment and services include: additional service charges, servers, network services, deployment infrastructure, and costly product maintenance services.  + The system operates 24/7 with 99.99% uptime  + Reuse existing services with low risk and high reliability.  + Periodically back up data to ensure data safety, avoid data loss cases  + Sustainable architecture with high scalability and development.  + Monthly system maintenance and product quality measurement when it reaches users regularly to ensure correct application and reduce risks.  + Test achieves a minimum error coverage rate of 80%.  + Promotion and trade activities take place every quarter to bring products closer to users and always maintain the corporate image.  + Update new technology trends to keep up with the age and increase competitiveness |

# Tasks and Deliverables

## Tasks:

* + - Technical research
    - Market analysis, comparison with existing products in the market
    - Collect requests from stakeholders.
    - Prepare documents:
      * Requirements document
      * Software architecture document
      * Source code document
      * Quality assurance documentation
        + Test strategy
        + Test plan
        + Test case specifications
        + Test checklists
        + Test report
      * Maintenance and help guide
      * Product: User documentation
      * Process Documentation
    - Project’s kick-off
    - Research technical
    - Construct product backlog
    - Develop Sprints: create sprint backlog, design interface, develop dashboard interface, testing, review, rework, retrospective
    - Deploy application on Google Play
    - Delivery and close project

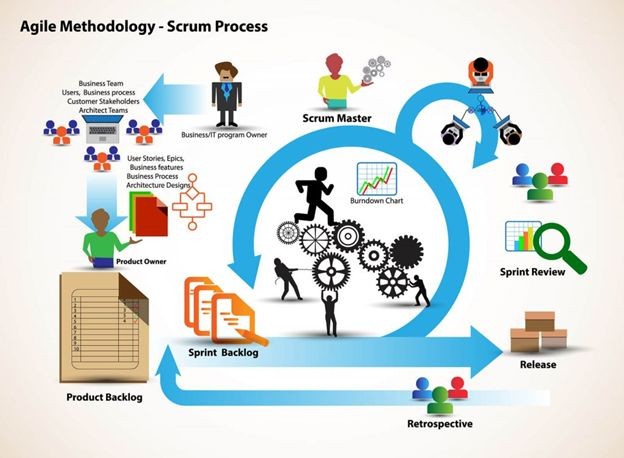
## Deliverables:

* + - Documents: Proposal, Project Plan, Product Backlog, User Story, Sprint backlog, Interface design, Architecture Design, Database Design, Test Case and Test Report.
    - User guideline
    - Source code delivery each sprint

# Project Management

## Agile Scrum

#### About Scrum:



#### Why do we choose Agile Scrum Methodology to develop the system?

* + - To keep up with today's increasingly changing technology trends, we want a truly flexible and easy project development model to adapt to that change. Our project will develop more new features in the future. We will continuously update and apply new technologies that increase the attractiveness and intelligence of the application.
    - Currently, our team is a small team with little experience in project development. Therefore, we cannot avoid problems that arise in the software development stages and requirements can be changed to be more suitable. For the traditional model that requires managerial skills and high accuracy, it will not suit our team. Applying Agile Scrum model will help us to solve these problems, bring a lot of experience and best performance for project development.

## Tentative Schedule

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Task Name** | **Duration** | **Start** | **Finish** | **Amount (hours)** |
| **1.** | **Initial** | 7 | 01/03/2021 | 07/03/2021 | 90 |
| 1.1 | Project’s Kick-off Meeting | 1 | 01/03/2021 | 01/03/2021 | 4 |
| 1.2 | Collect and analyse requirements | 4 | 01/03/2021 | 04/03/2021 | 40 |
| 1.3 | Setup Development Environment | 1 | 05/03/2021 | 05/03/2021 | 16 |
| 1.4 | Research Technical | 3 | 05/03/2021 | 07/03/2021 | 30 |
| **2.** | **Development** | 84 | 08/03/2021 | 30/05/2021 | 960 |
| **3.** | **Deploy the app on Google Play** | 2 | 31/05/2021 | 01/06/2021 | 60 |
| **4.** | **Delivery and close project** | 5 | 02/06/2021 | 06/06/2021 | 100 |

## Cost/Budget for Project

### Human Resource

|  |  |
| --- | --- |
| **Full Name** | **Position** |
| Man, Nguyen Duc | Mentor |
| Sang, Nguyen Thanh | Scrum Master, DevTeam |
| Thuyen, Pham Van | DevTeam |
| Tuan, Doan Kim | Product Owner, DevTeam |
| Loc, Phung Hoang Phu | DevTeam |

### Cost Estimate

#### Table 1: Total Cost

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Criteria** | **Price (USD)** | **Amount(h)** | **Total (USD)** |
| 1 | Working hour | 2.5 | 1120 | 2800 |
| 2 | Management cost | 20% | 224 | 560 |
|  | | | Total | 3360 |

#### Table 2: Cost Description

|  |  |  |
| --- | --- | --- |
| **Description** | **Amount** | **Unit** |
| Number of members | 4 | Person |
| Number of working hour per week per member | 20 | Hours |
| Number of working weeks | 14 | Day |
| The cost per member per hour | 2.5 | USD |
| The number of working hours per member | 280 | Hours |

#### Explain:

Amount of working hours = 4 members \* 280 hours.

Management cost = total \* 20%

# Conclusion

Along with the rapid development of Information Technology, the Tourism industry also inherits these benefits. The demand for technology products in the tourism industry is increasing. With this product, we will bring many great benefits such as: saving time, money, effort, ... The application of widely used technologies such as WEB / APP in combination with Artificial Intelligence will help make products smarter and more interesting. Inheriting the results of our previous project, this project not only promotes the development of the tourism industry by enhancing tourism image promotion, but also creating a healthy and healthy environment. fun so everyone can freely join and share their travel videos so that everyone has an authentic and vivid view of the tourist attractions.

A system that integrates commerce, brand promotion and social network will be a breakthrough and attract a large number of end users to our application. We not only allow users to earn income by their interaction on social networks, but also benefit our organization from advertising, travel commerce.

Given the complexity of social and commercial networks, we have to study carefully about issues related to law, economics, society and health. Malicious content can enter systems and require good control. Image and copyright issues are also important issues to consider. The influences from a social network on the community such as cultural products, communicative content and social behavior should be carefully considered to avoid serious risks affecting society and the organization.

Systems that incorporate AI recognition technology represent a major technological challenge to our teams. The complexity of deploying on both web and mobile platforms is also a big challenge to overcome. Project time and cost to maintain and implement the project are major problems for final year students.

The project team will develop this system within 14 weeks with a budget of 3360 dollars for 4 members. We ensure compliance with schedule, budget and on-time product delivery. We are determined to together with consensus, solidarity, research solutions to overcome challenges and manage progress to bring the project to success.

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# Attachment: DESCRIPTION OF PRODUCT REQUIREMENTS FORM