

**Capstone Project Report**

**Report 1 – Project Introduction**

– Hanoi, Jan 2025 –

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# I. Record of Changes

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| Date | A\* M, D | In charge | Change Description |
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\*A - Added M - Modified D - Deleted

# II. Definition and Acronyms

*[Fill all the definitions, acronyms,… used within the whole project in the table format as below]*

|  |  |
| --- | --- |
| **Acronym** | **Definition** |
| COS | Cafeteria Ordering System |
| … |  |

# III. Project Introduction

## 1. Overview

### 1.1 Project Information

* English name: ***Cafeteria Ordering System***
* Vietnamese name: ***Hệ thống đặt hàng quán cà phê***
* Project code: ***COS***
* Group name: ***SEP490-G4***
* Software type: ***Mobile App***

### 1.2 Project Purpose

*[Provide some sentence to describe general project purpose like sample below]*

<<Sample: The purpose of this project is to develop CraigsBay Auction House (CAH) system. The CraigsBay Auction House is designed to be an online auction and trading site with built-in real-time communication tools between potential bidders and the auction owner. The document is intended to serve as the guideline and intended goals for the implementation of the various functions of the program.>>

### 1.3 Project Stakeholders

|  |  |  |  |
| --- | --- | --- | --- |
| **Full Name** | **Role** | **Email** | **Mobile** |
| Nguyen Trung Kien | Lecturer | abc@fe.edu.vn | 0912345678 |
| Nghiem Thi Thuy Van | Leader | xyz@fpt.edu.vn |  |
| Dam Thi Huyen | Member | abx@fpt.edu.vn |  |
| Dao Thi Phuong | Member | .. |  |

## 2. Product Background

 Nếu phát triển sản phẩm thương mại để phân phối rộng rãi trên thị trường, cần mô tả rõ bối cảnh thị trường hiện tại, cũng như nhu cầu và mong muốn của nhóm khách hàng tiềm năng mà sản phẩm đang nhắm đến.

* Current market context
  + Tourism industry development
    - After-COVID-19: The tourism industry is recovering strongly after the pandemic, with an increase in domestic and international travel demand.
    - Personalization trend: Travelers now tend to seek personalized travel experiences, instead of joining large group tours. (https://laodong.vn/lao-dong-cuoi-tuan/du-lich-dang-duoc-ca-nhan-hoa-manh-me-1323649.ldo)
  + Technology and similar platforms
    - Existing platforms: Services such as Viator, ToursByLocals or Airbnb Experiences have partly exploited this market, but are still limited:
      * Viator and ToursByLocals: Focus on available tours, not flexible in connecting travelers with specific tour guides.
      * Airbnb Experiences: Mainly activities organized by individuals, not yet focusing on the role of professional tour guides.
    - Digitalization trend: The popularity of smartphones, social networks, and online payments facilitates technology products that directly connect tourists and tour guides.
* Needs and desires of potential customer groups
  + Customer segments
    - Individual or small group travelers (Millennials, Gen Z):
      * Usually young people, love to explore unique and local experiences.
      * Requirements: Tour guides understand local culture, are flexible with time and have reasonable costs.
    - Families with young children or the elderly:
      * Want reliable service, friendly tour guides, and the ability to adjust schedules to suit family needs.
    - Business and luxury travelers:
      * Prioritize professionalism, high-quality service, and guides with good language skills.
  + Main needs
    - Convenience: Easy to find, book, and contact the right tour guide through a mobile app or web platform.
    - Service quality: Want to ensure that the tour guide has experience, extensive local knowledge, and is clearly vetted.
    - Flexibility: Ability to customize the itinerary to suit individual needs.
    - Cost transparency: Clear pricing before booking.
    - Safety and reliability: Need for reviews, feedback from previous travelers, and identity verification of tour guides.
  + Additional desires
    - Pre-trip interaction: Customers want to communicate directly with the tour guide to prepare or ask for information before the trip.
    - Multilingual support: Especially important for travelers who are not fluent in English.
    - On-demand services: For example, finding a guide for the day, or for a short session instead of a long tour.

 Nếu sản phẩm được tạo ra để giải quyết một vấn đề cụ thể hoặc làm theo yêu cầu của khách hàng, cần mô tả chi tiết cách thức khách hàng đang vận hành, những vấn đề họ đang gặp phải mà sản phẩm sẽ giải quyết, hoặc nhu cầu cụ thể mà khách hàng cần được đáp ứng.

**1. How customers currently operate**

Currently, customers often search for and hire tour guides through the following methods:

1. Through travel agencies or traditional tours
   * Process: Tourists contact travel agencies, choose available tour packages, in which tour guides are provided by the company.
   * Limitations:
     + Lack of flexibility: Fixed tour packages, cannot be customized.
     + High cost: Tour prices include many intermediary costs.
     + No right to choose a specific tour guide.
2. Through forums, social networks or self-search
   * Process: Tourists look up information on travel forums, social networks, or search on Google to contact local tour guides directly.
   * Limitations:
     + Time-consuming: Searching and checking the reliability of tour guides takes a lot of time.
     + Lack of information: Difficult to verify the experience and knowledge of tour guides.
     + Safety risks: No protection system in place if there is a dispute or problem with the service.
3. Using online tour booking platforms
   * Process: Travelers use platforms like Viator, Airbnb Experiences, or GetYourGuide to book tours with guides.
   * Limitations:
     + Tours are readily available, not personalized or customized to the specific needs of the traveler.
     + Does not allow travelers to directly choose the tour guide that is right for them.

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**2. Problems customers are facing**

a. From the traveler's side

* Difficulty finding the right tour guide:
  + Travelers have difficulty finding a tour guide who is highly qualified, speaks the same language, or understands their specific needs (e.g., an immersive local cultural experience, outdoor activities, or family care).
* Lack of transparency:
  + Unclear about prices, service quality, or tour guide personal information.
* Lack of flexibility:
  + Existing platforms often do not support customizing services or booking tour guides on short notice.
* Safety risks:
  + Travelers are concerned about the reliability of tour guides when booking services through informal channels.

b. On the tour guide side

* Difficulty in reaching customers:
  + - Many tour guides are skilled but do not know how to approach tourists directly or rely on travel agencies to get work.
* Lack of initiative:
  + - Tour guides often have to follow schedules set by travel agencies, unable to provide personalized or flexible services
* Dependence on intermediaries:
  + - Tour guides receive low incomes because they have to share most of their profits with travel agencies.

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**3. Specific needs that the product needs to meet**

* For travelers
  + - Fast and reliable search:
      * A platform that helps travelers find the right tour guide based on language, location, expertise, and reviews from previous customers.
    - Personalized service:
      * Offers the ability to customize itineraries, times, and activities to suit individual needs.
    - Transparent costs:
      * Clearly display prices and fees before booking.
    - Safety and security:
      * Verified tour guide information, public review system, and dispute resolution support if problems arise.
* For tour guides
  + - Easy access to customers:
      * A platform that helps tour guides promote their services, display their expertise, and the tours they can offer.
    - Increase income and reduce dependence on intermediaries:
      * Help tour guides connect directly with tourists, keeping most of the revenue from the service without having to share with travel companies.
    - Convenient work management:
      * Integrate tools for tour guides to manage schedules, receive booking requests, and track reviews from customers.

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**4. How does the product solve the problem?**

* The product will:
  + - Provide a direct connection platform:
      * Create an environment for tourists and tour guides to interact, discuss, and confirm services.
    - Integrate smart search tools:
      * Use AI to suggest tour guides that match the specific requirements of tourists.
    - Ensure safety and reliability:
      * The system verifies the identity of tour guides and displays real reviews from previous tourists.
    - Transparent payment and booking support:
      * Integrate online payment, deposits, and clear refund policies.
    - Increased personalization:
      * Allow travelers to customize their itinerary and experience the tour guide directly before booking.

*[This section summarizes the rationale for the new product. Provide a general description of the history or situation that leads to the recognition that this product should be built. You should also mention here the information on the customer /the people who raise project idea/request]*

<<Sample: Employees at the company Process Impact presently spend an average of 65 minutes per day going to the cafeteria to select, purchase, and eat lunch. About 20 minutes of this time is spent walking to and from the cafeteria, selecting their meals, and paying by cash or credit card. When employees go out for lunch, they spend an average of 90 minutes off-site. Some employees phone the cafeteria in advance to order a meal to be ready for them to pick up. Employees don’t always get the selections they want because the cafeteria runs out of certain items. The cafeteria wastes a significant quantity of food that is not purchased and must be thrown away. These same issues apply to breakfast and supper, although far fewer employees use the cafeteria for those meals than for lunch.>>

## 3. Existing Solutions

*[List out and describe systems which might help solving the problems you listed above or the systems in which you can learn/refer the features for your system design]*

Mô tả các phần mềm hiện có trên thị trường là đối thủ cạch tranh với sản phẩm đồ án định làm.Hoặc mô tả các phần mềm mà đang giải quyết được nhu cầu của khách hàng. Ưu điểm nhược điểm của những phần mềm này, đối chiếu với nhu cầu của khách hàng. Mỗi mục 3.1, 3.2, 3.x là một phần mềm hiện có.

### 3.1 Viator

Description:

Viator, owned by Tripadvisor, is a platform that offers tours, activities, and experiences organized by tour guides or travel agencies.

*Pros:*

* Extensive catalog: Thousands of tours and activities are available in many destinations around the world.
* Integration with Tripadvisor: Users can easily read customer reviews and comments before booking.
* Simple booking process: Integrated online payment, quick confirmation.

*Cons:*

* Lack of personalization: Tours are often fixed packages, not flexible to customize the schedule according to individual needs.
* High cost: Tour prices often include intermediary service fees, making prices less competitive.
* No focus on 1-1 connection: Travelers cannot directly choose the right tour guide based on language, style, or personal preferences.

Compare with customer needs:

* Suitable: For tourists who want to book traditional tours quickly, without customization.
* Not suitable: Tourists who want to connect directly with tour guides, customize schedules, or optimize costs.

### 3.2 ToursByLocals

Description:

ToursByLocals is a platform that connects travelers with local guides to conduct customized tours.

*Pros:*

* Customizable itinerary: Customers can request to design their own tour according to their individual needs.
* Tour guide quality: All tour guides are screened, interviewed, and verified before operating on the platform.
* Multilingual: Many tour guides are able to use different languages, suitable for international travelers.

*Cons:*

* High price: Costs are often high due to the focus on service quality and professional tour guides.
* Limited accessibility: Only available in major cities or tourist areas.
* Inconvenient: The platform does not integrate popular mobile applications like other platforms.

Compared to customer needs:

* Suitable: For customers with high budgets, requiring customized services.
* Not suitable for: For budget customers, or those looking for flexible and cost-effective solutions.

## 4. Solution & Opportunity

*[Describe the market/business opportunity that exists or the business problem that is being solved. Describe the market in which a commercial product will be competing or the environment in which an information system will be used. This may include a brief comparative evaluation of existing products and potential solutions, indicating why the proposed product is attractive. Identify the problems that cannot currently be solved without the product, and how the product fits in with market trends or corporate strategic directions]*

Mô tả cụ thể hơn về nhu cầu của các lớp người dùng, khách hàng cần một sản phẩm như thế nào? Để giải quyết được nhu cầu mô tả ở mục 2 của tài liệu này. Tưởng tượng là sau khi sản phẩm làm xong thì người dùng sẽ sử dụng sản phẩm này như thế nào? Cách thức mà sản phẩm này đáp ứng được nhu cầu của khách hàng/người dùng

1. User Class Needs

1.1. Traveler (Service User) Needs

• Easy Guide Search:

o Travelers want an intuitive platform where they can quickly find guides that match their needs (language, expertise, personality, style).

• Service Customization:

o Need the ability to design personalized tours based on their own preferences (e.g. sightseeing, cultural experiences, sports activities, etc.).

• Transparency and Trustworthiness:

o Want to know clearly about the tour guide: experience, certification, language, and reviews from previous customers.

• Reasonable and Clear Costs:

o Need to know the service price in detail, no hidden costs, and suitable for the budget.

• Safety and Support:

o Want the platform to ensure safe transactions and quick support if problems occur.

1.2. Tour Guide (Service Provider) Needs

• Direct connection with tourists:

o Want to have the opportunity to reach customers without having to rely on travel agencies or incur high intermediary fees.

• Flexible work management:

o Need tools to easily manage schedules, receive bookings, and update information about personal services.

• Personal branding:

o Want to create a professional profile where they can promote their skills, achievements, and experiences to attract customers.

• Increase income:

o Need a platform that not only provides regular work but also reduces intermediary costs, optimizing income.

2. How does the product meet the needs?

2.1. For tourists

• Product usage process:

1. Search for a tour guide:

Tourists access the application/website, enter search criteria such as location, language, date and time, activity type, budget. The system suggests a list of suitable tour guides.

2. View detailed information:

Tourists view each tour guide's profile, including:

 Work experience.

 Area of ​​expertise (culture, history, nature, etc.).

 Languages ​​spoken.

 Reviews and comments from previous customers.

3. Book a service:

 Tourists choose a tour guide, send a request and discuss directly on the platform to customize the itinerary.

 Confirm and pay via the platform with clear cost information.

4. Service Experience:

Tourists meet the tour guide at the designated location and take the tour according to the itinerary.

5. Post-service evaluation:

After completion, visitors can rate and leave comments about the tour guide to improve the quality of the platform.

• Main features:

o Smart search engine to recommend suitable tour guides.

o Live chat system with tour guides to discuss and customize the itinerary.

o Integrated secure online payment.

o Display reviews and transparent rating system.

2.2. For tour guides

• Product usage process:

1. Create a personal profile:

Tour guides register and provide information such as:

 Self-introduction and experience.

 Professional skills, languages ​​used.

 List of services and tours that can be provided.

2. Receive service booking requests:

 View and approve requests from customers.

 Discuss detailed schedules via the chat system.

3. Perform the service:

 Tour guide meets customers according to the agreement and performs the tour.

4. Receive payment:

After completing the service, the system will transfer payment (after deducting platform fees if any).

• Main features:

o Schedule management system and booking requests.

o Personal branding tool through detailed profiles and review system.

o Integrate feature to suggest potential customers based on location and time.

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3. How will the finished product work?

Example usage scenario:

From the perspective of tourists:

• Situation: Mr. Minh, a tourist from Hanoi, wants to travel to Hoi An for 2 days. He needs an English-speaking tour guide to help his family visit the old town, learn about local culture and cuisine.

• How the product solves:

1. Mr. Minh logs into the app, enters the criteria: "Hoi An, cultural tour, English-speaking tour guide, January 20-21".

2. The app suggests 5 suitable tour guides. He views the profiles, reviews, and chooses Ms. Thao - who has experience leading culinary tours.

3. Through the chat system, Mr. Minh discusses with Ms. Thao to add a cooking experience to the itinerary.

4. After reaching an agreement, he confirms the booking and pays via the app.

From the tour guide's perspective:

• Scenario: Ms. Thao receives a request notification from Mr. Minh. She reviews the itinerary and suggests additional activities such as visiting craft villages. After reaching an agreement, she schedules and performs the service. After the tour, she received 5-star reviews and had more potential customers from Mr. Minh's introduction.

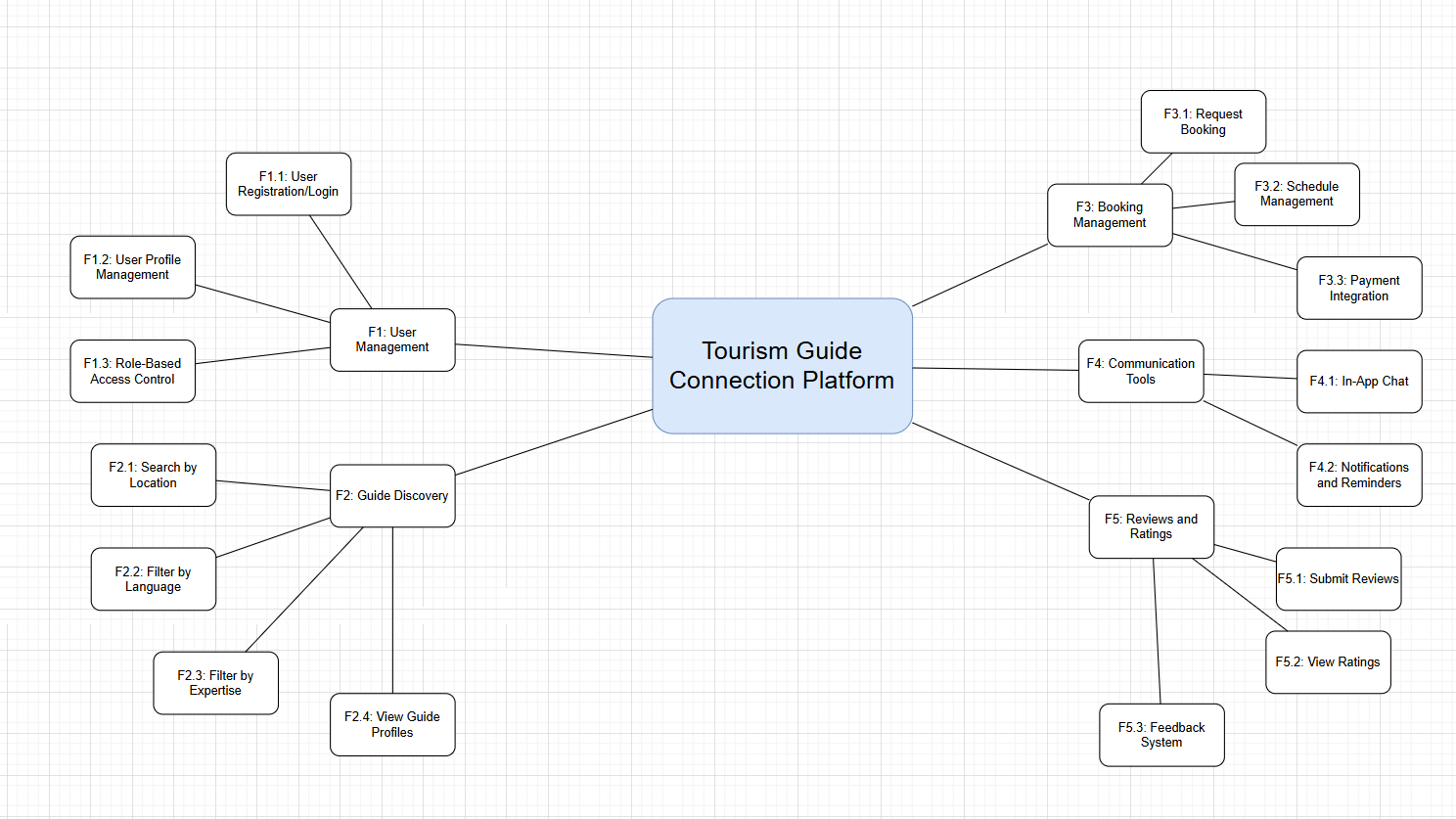
## 5. Project Scope & Limitations

*[The project scope defines the concept and range of the proposed solution. It’s also important to define what will not be included in the product. Clarifying the scope and limitations helps to establish realistic expectations of the many stakeholders. It also provides a reference frame against which proposed features and requirements changes can be evaluated. Proposed requirements that are out of scope for the envisioned product must be rejected, unless they are so beneficial that the scope should be enlarged to accommodate them (with accompanying changes in budget, schedule, and/or resources)]*

### 5.1 Major Features

*[Include feature tree or a numbered list of the major features of the new product, emphasizing those features that distinguish it from previous or competing products/systems. Specific user requirements and functional requirements may be traced back to these features.]*

Sử dụng sơ đồ mindmap hoặc feature tree để mô tả các tính năng chính của chương trình. Và mô tả ngắn các tính năng này bằng lời văn, đánh mã định danh duy nhất cho mỗi tính năng



**F1: User Management**

User management includes features related to registration, login, and permissions:

* **F1.1: User Registration/Login**  
  Support users to create new accounts and log into the system.
* **F1.2: User Profile Management**  
  Allows users to edit personal information such as name, avatar, or service-related information.
* **F1.3: Role-Based Access Control**  
  Distinguish between customer and tour guide authority, ensuring appropriate functionality for each role.

**F2: Guide Discovery**

Search and discover guides easily:

* **F2.1: Search by Location**  
  Travelers search for tour guides by desired location.
* **F2.2: Filter by Language**  
  Filter the list of guides by supported languages.
* **F2.3: Filter by Expertise**  
  Choose a guide by area of ​​expertise (culture, nature, cuisine, etc.).
* **F2.4: View Guide Profiles**  
  View detailed information about each guide, including reviews, experience, and costs.

**F3: Booking Management**

Manage bookings between customers and tour guides:

* **F3.1: Request Booking**  
  Allows visitors to send service booking requests to tour guides..
* **F3.2: Schedule Management**

Provide detailed schedules for both tourists and tour guides.

* **F3.3: Payment Integration**

Integrate secure and transparent online payments.

**F4: Communication Tools**

Provide direct communication tools:

* **F4.1: In-App Chat**

Support communication between tourists and tour guides to discuss service details.

* **F4.2: Notifications and Reminders**

Send notifications about updates or reminders to users.

**F5: Reviews and Ratings**

Enhance transparency through reviews and comments:

* **F5.1: ​​Submit Reviews**

Tourists can rate the service after completion.

* **F5.2: View Ratings**

Display the tour guide's overall rating to help customers choose easily.

* **F5.3: Feedback System**

Collect feedback to improve service quality and platform

### 5.2 Limitations & Exclusions

*[Identify any product features or characteristics that a stakeholder might anticipate, but which are not planned to be included in the new product.]*

Limitation là những tính năng cần thiết của sản phẩm nhưng ở giai đoạn này chưa làm được do các ràng buộc về phạm vi, thời gian, nguồn lực…Nhưng trong tương lai sẽ làm.

Limition: Payment method

Exclusions là những chức năng nằm ngoài phạm vi của chương trình, hiện tại không làm và tương lai cũng không làm nó

Exclusions: