REQUIREMENTS

Contents

Part 1: Elicitation of Requirements

The main users of this webapp would be hotel business owners - the main target audience. However, other members of the hospitality industry such as members of the restaurants sector and food and beverages sector may be other users.

Methods of elicitation:

From the 9 BABOK defined techniques (BABOK, 2015)[1], the following techniques were used:

Brainstorming: The context of the problem from coursework 1 was analyzed. Ideas were noted down for key things the user may want and need in the webapp. This technique was chosen first as this requires no references, searching the internet, as well as no involvement of outside members that violates UCL ethics approval. This makes it a good starting point to elicit requirements.

Prototyping: Iterative evaluation of requirements over the timeframe of the entire project. This technique is useful in making changes and gathering new ideas after each iteration. Each requirement can be validated, and early feedback can be provided iteratively. This was used throughout the project rather than just at the start.

Document Analysis: Existing systems and documentation were analyzed, and any relevant existing requirements were documented. This technique is particularly useful for non-functional requirements, where there is a wide range of documentation available. However, it is generally useful to analyze existing similar applications and elicit requirements this way. This technique is advantageous when brainstorming using one's own knowledge is limited.

The techniques of Focus Groups, Interviews, Observation, Workshops and Survey/Questionnaire were initially considered since they can be good ways to actually gather stakeholder and user needs and wants from the user themselves. However, these were not used since they violate the UCL ethics approval.

Requirements specification method:

User story is selected since the selected methodology CRISP-DM, involves elements of Agile methods, for which user stories are important. It is also selected as the requirements method since it focuses on the real needs and wants of the end user. It also makes generating use cases easier, thereby tailoring the requirements more towards the end user and gain a better understanding of why users want a certain functionality (GatherContent, 2022)[2]

Part 2: Requirements Documentation, with Prioritization

Potential users:

1. Hotel business owners
2. Hospitality business owners such as restaurant owners

Requirements prioritization method:

The chosen method of prioritization is: 100 points prioritization. This method was used because it provides a quantitative measure to rank the user stories by importance, to ensure the most important features are ensured to be implemented. Also, since the timeframe given for the coursework project was very short, around 5-6 weeks, a fast but relatively reliable ranking method is required. The reasoning for the rankings is explained after the table.

Number	User Story	Acceptance Criteria	Functional/Non-Functional Requirements	Points
US01	As a hotel business owner, looking to expand my global hotel locations, I want to identify the top country for average tourism arrivals as well as rankings for the other top countries.	1. Display top 1 to 20 countries with highest average number of tourist arrivals over the last 10 recorded years, possibly using a bar chart, for example. 2. A feature, such as a slider can be used to move between and display between top 1 to top 20 countries. 3. Data must be retrieved from the International Tourism number of arrivals database using an authenticated API.	Functional	20
	As a hospitality business owner, since I work internationally, I may not always have a laptop readily accessible, but I always have my phone. Therefore, I want the app to be available and usable both on mobile as well as my PC.	1. Able to access and download the webapp on major app stores like Apple App Store and Google store to cover IOS and Android users. (Statista, 2018) [3]. 2. Webapp must support 5 recent versions of Android and IOS.	Non - Functional	16
	As a hotel business owner, I want to be able to access the webapp using any of the popular browsers, particularly Google Chrome and Safari, which I usually use.	3. The webapp should support the last 3 versions of each of the top 6 most popular browsers: Google Chrome, Safari, Microsoft Edge, Firefox, Samsung Internet and Opera. (Oberlo, n.d)[4].	Non-Functional	14
	As a hotel business owner, I want to visualize the trends such as positive or negative correlation for a country for levels of tourist arrivals over the years to ensure that my hotels succeed financially in the long term.	1. Search for a country name and return graphs which show trends in tourist arrivals in the last 10 recorded years – for example, show positive or negative correlation or a logarithmic relationship. 2. Data must be retrieved from the International Tourism number of arrivals database using an authenticated API.	Functional	12
	As a general user of the webapp, I want to have search	1. Search box should accept alphanumeric values.	Functional	10

	User Story	Acceptance Criteria	Type	
	functionality available on all pages, so that I can use keywords search for any countries I am interested in and obtain information about its international tourism arrivals over a long time period (e.g. 10 years).	2. Search results should display all countries matching the keyword, with 10 items per page.		
	As a hospitality business owner, I spend a lot of time working, and want to have more time for family, so I want to spend minimal time waiting on search results.	1. On any page of the webapp, the system should respond to all search requests and display the results within 2 seconds of receiving the request.	Non - Functional	10
	As a hotel business owner, I want to identify regions with the highest number of tourist arrivals in the last 10 years, so that I can expand my business and open a chain of hotels in some countries in a chosen region.	1. Display the 7 regions, ranked by number of tourist arrivals. 2. Search must allow for filter by regions. 3. Data must be retrieved from the International Tourism number of arrivals database using an authenticated API.	Functional	8
	As a hotel business owner, I want to post any hotel locations I have opened and planned future locations, as well as my contact information, so that owners of other hospitality businesses like restaurants can contact me to collaborate and open their restaurant within or next to my new hotels. This can increase both of our profits and revenue.	1. An account must be created, with username and password. 2. In the account contact details can be entered, including owner name, hotel name, business name, business email address, business phone number, personal phone number (optional). 3. New location address entered by user. 4. Webapp section with posted locations of upcoming hotel businesses is displayed, including posted location address, business name, email address and business phone number. 5. There must be an option to delete the account if user desires. 6. Details must comply with data protection legislation (GOV.UK (2018)[5].	Functional	5
	As a restaurant owner, I want to contact and communicate with the hotel owners to collaborate and open restaurants in popular locations with high levels of tourist arrivals. This can increase both our profits and revenue.	1. Users can search for specific country names. 2. Search entries return the available posted locations and basic contact information of the hotel owners, including hotel name, business name, business email address and business phone number. 3. Users should not see the personal account details of the hotel business owners such as username, password but only posted location address, hotel name, business name, email address and business phone number.	Functional	5

Prioritization reasons for choice:

- **20 points** (the highest rank) were given to identifying the top country/s in terms of tourist arrivals as the main goal of this app was to achieve this goal for any hospitality business owner users in order to choose a target country location to increase popularity and revenue.
- **16 points** were given to the usability of the webapp on a mobile phone as well as a desktop PC. This is important since the target users specified are international business owners and travel frequently (Bogunovic, S. 2022)[6], so if they don't have their laptop for any reason or usually uses a desktop PC, they wouldn't be able to access the app. Also, most people always have a mobile phone readily available, so this extends the app's popularity. So cross-compatibility is required.
- **14 points** were given to being able to access the webapp using any mentioned browser because this is still important as the hospitality business owners need a browser to access the application. But it may not be as important as the requirement above it since many different browsers aren't necessarily *needed* to access the app, since the user could easily just download the browser that works. However, it is still deemed as a higher ranked requirement.
- **12 points** were given to the ability to visualize trends for each countries' tourism arrivals over time such as positive correlation (Investopedia, 2022)[7]. This is still very important, even if the hotel business owner finds a popular location based on average tourism levels. If the trend had negative correlation, then it would not be sensible to put a location there as there would be a risk of popularity decline in the future.
- **10 points** were given to both user stories of search functionality on all pages and for time as both are for convenience and ease of use, hence they aren't as highly ranked as the other functional requirements above. Though, they still are important to save the users' time.
- **8 points** were given to the user story of identify regions with the highest tourist arrivals as, although this is a useful feature to expand the business chain internationally, it would be seen as a future goal for the hotel users, to progressively expand their chain.
- **5 points** were given for the location posting functionality as well as the ability for hospitality business owners such as restaurant owners to contact hotel owners with existing locations. This is a useful feature, but may take some time and consider various other factors such as the location of other businesses nearby or even unrelated chains which may interfere with their business if they open nearby. For example, the hotel may already have a restaurant down the road which can only be found out upon doing more research than what this webapp provides. This is an extra optional feature to be implemented so is the lowest ranked.

References:

1: BABOK Page. (2015). Elicitation. [online] Available at: https://babokpage.wordpress.com/elicitation/ [Accessed 4 Jan. 2023].

2: GatherContent. (2022). What are user stories? (And why are they important for your content) - @GatherContent. [online] Available at: https://gathercontent.com/blog/getting-to-grips-with-user-stories [Accessed 4 Jan. 2023].

3. Statista (2018). App stores: number of apps in leading app stores 2018 | Statista. [online] Statista. Available at: https://www.statista.com/statistics/276623/number-of-apps-available-in-leading-app-stores/ [Accessed 4 Jan. 2023].

4. www.oberlo.co.uk. (n.d.). Most Popular Web Browsers in 2021 [Dec '21 Update] | Oberlo. [online] Available at: https://www.oberlo.co.uk/statistics/browser-market-share [Accessed 4 Jan. 2023].

5. GOV.UK (2018). Data Protection Act. [online] Gov.uk. Available at: https://www.gov.uk/data-protection [Accessed 4 Jan. 2023].

6. Bogunovic, S. (2022). 6 main reasons people travel for business in a digital world. [online] TravelPerk. Available at: https://www.travelperk.com/blog/main-reasons-people-travel-for-business-in-a-digital-world/ [Accessed 4 Jan. 2023].

7. Investopedia, (2022) Positive Correlation: What It Is, How to Measure It, Examples. [online] Available at: https://www.investopedia.com/terms/p/positive-correlation.asp#toc-what-is-positive-correlation [Accessed 4 Jan. 2023].