Dalton Murray

Systems Analysis and Design

INT 6123 – Systems Analysis and Design

Dr. Andrew Makar

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**IA #2 Spring Breaks R Us**

**Question 1 - Who are the stakeholders for SBRU? For each type of stakeholder, what aspects of the SBRU booking system are of particular interest?**

The stakeholders, the people who are affected by the system, for Spring Breaks R Us, SBRU, are: college students (their primary customer/client), the hosts of the college students/the resort/hotel/place they are staying at (the customers hosts), the employees of SBRU (anyone employed by SBRU, staff members, customer services, all the way through the CEO), and with the new upgrade the people who the college students are contacting with the social networking features.

College students: They book a spring break trip, pay fees, and can take advantage of the new social networking feature to expand their network of people they know.

Hosts of the college students (and their staff): They get money from SBRU who get the money from the college students, they have to also communicate with SBRU’s system showing room vacancies, and any other information such as payments and fees.

Employed by SBRU: They work for SBRU directly, they get paid by SBRU to perform a job.

Social networking contacts: They get to expand their social network with college students who may be looking for jobs or for anything else.

**Question 2 - What are the main functional requirements for the major subsystems (i.e., resort relations, student booking, accounting and finance, and social networking)?**

Functional requirements include the primary functions which the system must perform (Satzinger et al., 2016. p. 43).

College student: The main things the students will interact with are the booking system, the booking system must show them what hotels and resorts have available vacancies, it must have a filter system allowing them to search by country, state, city and if they prefer certain brands, it should also be able to filter this. They will also interact with the payment system, they need to be able to enter in the way they choose to pay, for example PayPal, or direct card information, in a safe, secure way. They need to be able to see the prices of the rooms and how much each of the fees are, and if there are any additional fees or deposits, they must make. They also need to be able to interact with the different available places if they have any questions. They also need to be able to use the social network system, being able to find nearby people who are also signed up into it, contact people, send and receive messages, and have different social networking features like having a random function to meet new people.

The resort: They need to be able to interact with SBRU’s vacancies systems, showing automatically if they have rooms available and what rooms are available, their prices need to adjust and show automatically. They also need to be able to interact with SBRU’s payment system so they can charge any additional needed fees, like cleaning fees. They also need to be able to talk with and interact with the students if they have any questions.

SBRU: Their systems must be able to be used by both the resort and the student, they need to ensure that the systems are always available for them to use, and have a way to be contacted if there are ever any problems.

**Question 3 - Describe some usability requirements for students, booking interactions, and social networking interactions.**

Usability requirements include the requirements of the system that make it usable, or operational characteristics, such as quality of life features like a user interface, documentation, and getting help (Satzinger et al., 2016. p. 45).

Some usability requirements are a good user interface, if they book through an app it must work on all available operating systems (Android and iOS), if they have a website it needs to be available for all different browsers. The interface must look professional and work well. There needs to also be a frequently asked questions available as well as documentation and further ways to contact SBRU if there are any problems. The pricing system used should always update with the resorts prices while also listing all fees and potential fees which are not hidden. The resort should be able to be contacted in an efficient manner by the student, as well as the resort contacting the student and both being able to contact SBRU. Everything should also have multiple languages available such as English, Spanish, Mandarin, and other languages. There should also be available accessibility features like changing font size, colors, and themes. For the social networking, it is unfortunately very vaguely worded and there are many different types of social networking so I am under the assumption that it is a way to meet new people and not intended as a dating social network or other types of social networks for example posting pictures and reviews about places as those should have their own systems. The social network should allow you to be able to randomly meet with another person and have different potential filter options.

**Question 4 - Assuming that social networking at the resorts will require wireless communication and connection to the Internet, what are some reliability requirements that resorts might be asked to maintain? What are some performance requirements? Is this a bigger issue because resorts are in international locations?**

Reliability requirements are requirements which the system has in order to be dependable (Satzinger et al., 2016. p. 45). The student should be able to filter if the resort has a wifi connection, or how close wifi connections are to them that are available, as well as filterable cellular (data) options. I believe it to be reasonable to require every resort to have a wifi connection and that the wifi connection is made available to each of the guests which are staying in the room. I also believe that the wifi connection should also have a requirement of it being stable enough for them to at minimum perform basic searches on the Internet and access the SBRU websites and apps, which also relates to the performance requirements. I believe it is reasonable to expect a decent amount of performance with at minimum of 30Mbps per device, which allows for a fast connection to the Internet and should be able to perform most functions including if needed watching Youtube videos or other things for entertainment. I also believe that there are reliability requirements outside of wifi, I believe that SBRU should allow filter options such as saying if the area receives frequent power outages, and other valuable information which may affect the students stay.

The requirements of a wifi or Internet connection may be problematic internationally if going to what is considered a third-world country. I think the student should receive a disclaimer stating that the resort doesn’t have an Internet or wifi connection and can still proceed staying there if they want to. If they are going to a non-third world country, such as Denmark, the average Internet speed is actually faster than the average speed in the United States (*Internet speed around the world*).

**Question 5 - What are some security requirements? Is there any reason why students in Europe, Asia, or other locations could not book rooms through SBRU? What issues might be anticipated?**

Security requirements are requirements for the security of the system, or how a person can access the system and how the data in that system is being controlled and protected (Satzinger et al., 2016. p. 46). Some security requirements are that the payment system requirements full end-to-end security, the different features such as the student or resort communicating with each other also require a measure of security such as the HTTPS protocol if performed on the website or app and the website requires an SSL certificate. I also believe there should be more security features such as if the app or website stores information in cookies or on the device it must be encrypted. Any data stored by SBRU should also be hashed/encrypted such as passwords.

There are reasons why students in Europe, Asia, or other international locations cannot use the app and that is because of local laws and national laws, like the GDPR. Ideally, SBRU would already be GDPR compliant and allow for these students to use the features SBRU provides.

**Question 6 - To collect information on functional requirements for the social networking subsystem, what are some techniques that might be used? Be specific and include some sample questions you might ask by using various techniques.**

For SBRU to collect information on the functional requirements of the social networking system and subsystems, that being the primary functions which the system must actually perform they have quite a few options (Satzinger et al., 2016. p. 43). They can send out surveys to existing and new people who use the SBRU booking system, they can send out surveys to college students who haven’t used the system yet, and they can perform surveys on everyday people and get their opinions about social networking apps and systems. They can also do interviews with police in different locations getting their opinions on how to keep both the college students and the people they are connecting with safe. SBRU can also perform interviews with locals of different countries which are popular for tourism and students to go to for spring break. Some questions which SBRU can put in surveys for the college students are: Would you use a social networking app to meet with new people where you are going to for spring break?, How do you feel about social networking?, What do you think should be done to keep people who use social networking safe?, they can also ask these questions to the locals and to the police in the surveys and interviews. Another question they can ask for locals is Would you consider using a social networking app to meet new people who are coming here, potentially internationally, to show them your culture and to experience some of theirs too?. There are many questions which can be asked to these three different groups of people to get an idea of features and how they feel about social networking.

**References**

*Internet speed around the world*. Speedtest Global Index. (n.d.). https://www.speedtest.net/global-index

Satzinger, J. W., Jackson, R. B., & Burd, S. D. (2016). Systems analysis and design in a Changing World (7e ed.). Cengage Learning.

I have neither given nor received unauthorized aid in completing this work, nor have I presented someone else's work as my own.

*Dalton Murray*