

OBJECT-ORIENTED ANALYSIS AND DESIGN

1st Homework Assignment

Due on: Sunday, February 22, 2009

Task-1

In this homework, you will determine requirements elements: **FRs, NFRs, risks, constraints**, and additional stakeholders.

Answer the following questions:

1. Read the interview transcript on the preceding pages.
2. In the transcript, underline the title of the business owner or business owners for the analysis of the Wimbledon system. Is it the administrative assistant? Is it the president? Is it the tournament director? Is it all three?
3. In the transcript, underline and label the FRs and NFRs.
4. In the transcript, underline and label the stakeholders.
5. In the transcript, underline and label the risks and constraints.

Task-2

Write a vision document based on the interview script. Vision document includes the following sections.

Introduction

Business Opportunity

Proposed Solutions

Risks

Constraints

Contains the problem statement

Contains business owners view of company (past and future)

Contains high-level requirements

Contains potential problems that can affect the project

Defines the bounds on resources for the project

INTERVIEW TRANSCRIPT

The following is a transcript of an interview that took place between Jon Freeley, business analyst with the ACME Consultant Company, and Jacques Schwartz, President of Wimbledon Tennis Tournament.

Jacques: Good morning, you must be Mr. Freeley with the ACME Consulting.

ACME: Yes, it is nice to meet you. It is always nice to work with a client in an interesting field such as tennis. This is such a beautiful facility you have.

Jacques: Well, I have been the president here at the All England Tennis Club for 22 years, back when wood racquets were common and every player was dressed in solid white. The club itself has its origins back in the late 1800s.

ACME: There is quite a history here, I am sure. I can remember watching matches on Television when I was young.

Jacques: We started broadcasting on color television in 1967. Now we have major television coverage, press coverage, and an Internet site for our over 3 million fans worldwide.

ACME: Wow, there are a lot of tennis fans out there. How many players do you get?

Jacques: Usually we get around 300 participants with around 240 in the men's and women's singles and another 60 or so who only play doubles. These players come from around the globe, but mostly from the United States, Germany, Sweden, France, Australia, Mexico, and Spain.

ACME: Great, that gives me some idea of the size of your tournament. Before we go any further, let me give you a little overview about this interview.

Jacques: Sure, that is fine.

ACME: You are my first point of contact into your organization. We at ACME consulting like to interview the business owners to get a picture of the major requirements of the system. After this interview, I will be scheduling several follow-up interviews with prospective users to get additional details.

Jacques: Great. My associate, Mr. Barnes, can help you arrange interviews with other employees.

ACME: OK, so if you do not mind, let me ask you about your staff. Who do you employ for the tennis tournament?

Jacques: It is pretty simple really. We have a tournament director that runs the tournament. She is responsible for creating draws, ensuring that matches take place on time that courts are ready, and so on. She is a very busy person during the two-week tournament. In fact, she might have a more vested interest in this project than I do; the system you design must work well for a smooth tournament.

ACME: I bet she is busy. Could I have her name?

Jacques: I remember my days as a tournament director; it was incredibly hard during the two weeks of the tournament. Her name is Janet Gibson.

ACME: Thanks. You used the term *draw*, what is that?

Jacques: Oh sorry, I forgot you might not be a tennis expert. A draw is a hand-written chart outlining each of the matches that are played in the tournament. Our director can probably show you an example—it is easier to understand when you see it.

ACME: That would be great. Aside from the director are there any other employees who are integral in the tournament?

Jacques: During the two weeks of the tournament we employ people for several temporary positions. First, we have around 50 tournament officials who are sent from the International Tennis Federation who help to officiate each match. Then, we have medical people on staff to help with injuries. There are also press and sponsorship relations people, caterers, and so on. Finally, we have several long-time volunteers that help the tournament director with the draw. It is usually viewed as a privilege to work at the Wimbledon tournament.

ACME: Do all of these people help manage the tournament?

Jacques: No, the tournament director is responsible for creating the draw and then making changes to the court assignments and match times during the tournament. Tournament officials, specifically chair umpires, enter scores of matches on the draw sheet after the matches are over. These are the two primary people that actually modify the draw. Volunteers also help under Janet's guidance. Most know how to create and manage draws, because they come from small tennis clubs around the world. Of course, if anything needs to be done though, Janet can pretty much do any of it.

ACME: What about the results, who views them?

Jacques: We have many fans who want to see the daily results from matches. In fact, I would like to have those put up on our Web site so people can access them quickly through the Internet. We tried this before, but just could not get it done.

ACME: Really, what stopped you?

Jacques: Well, we finished most of the Web site, but the board of directors for the All England Tennis Club wanted us to build a bigger center court with more seating for fans. I was pressured to stop the web project and to redirect the remaining money to the new center court.

ACME: I see, so does the board of directors have the final say over projects?

Jacques: Not really. I make the decisions, but as you might guess they are influenced by our shareholders. Because we make most of our money from attendance, the focus is usually on spending money to accommodate more fans. They are also keeping a close eye on a similar tournament management project developed for another tournament. I know that project is not off to a good start, so it should not be an issue.

ACME: That is important to know. Why is the other project failing?

Jacques: They are a smaller tournament and they have run out of funding.

ACME: Are there any other competing projects planned?

Jacques: I do not believe so, but you never know. I will certainly keep you informed and try my best to convince the board of the benefits of this project.

ACME: That would be good. Could you tell me more about your Web site?

Jacques: Our Web site currently has information about the tournament, the Lawn Tennis Association, and the All England Tennis Club. It also has a history of the

tournament, statistics, and a shop where people can buy tickets and memorabilia. I would really like to see the draw up there with updated scores.

ACME: That certainly makes sense. So you have got a director, officials, and fans. Is anyone else interested in the draw?

Jacques: Actually, our press people also ask to see the scores as they are updated. Usually that means that they gather around the large draw sheet in our main club house. It would be great to give them a way to see the draw without getting in the way of our director and officials.

ACME: Is the entire tournament draw written on one large piece of paper?

Jacques: Yes and no. The tournament has five separate draws because we not only have men competing against men for a title, but we have a women's singles title, a men's doubles title, a women's doubles title, and a mixed doubles title (with teams of one man and one woman). So, in fact there are five large poster-size pieces of paper with all of the matches, player names, scores, and so on that is maintained by the tournament director.

ACME: So these are all posted and updated at one central location; a club house?

Jacques: Currently, the main draws are maintained at the club house, but they are duplicated onto A4 paper, by hand, at the end of each day, and then copied and distributed to press, fans, and posted throughout the facility.

ACME: I can certainly see a need for being able to distribute the results more easily.

Jacques: Yes, we do too. It has become very hard to get the results duplicated and distributed at the end of each day, and the press people complain that they do not have their results until late in the day. If they could get results within 10 minutes or so of the matches finishing, without having to walk to the club house, which would be great.

ACME: OK, I will put automated Web delivery at the top of the list. What about different languages? Does any information in the draw have to be translated?

Jacques: Not today. The draw really just consists of player names and scores, so nothing really needs to be translated.

ACME: Great.

Jacques: Did anyone mention to you our sponsorships with MatchMate?

ACME: I recall your assistant mentioning these relationships. Can you tell me a bit more?

Jacques: Well, MatchMate is a small technology company that has given us a lot of money to sponsor our tournament. Their product is a small hand-held computer that can be used by umpires to keep score of a match (instead of writing the score down on a scoring sheet). The great thing about these computers is that the scores can be sent from the hand-held computer to another computer through the air. This means that umpires no longer have to crowd around the draw to enter the scores from their matches.

ACME: Sounds like some sort of infra-red signal, like with a remote control for a television.

Jacques: Something like that. Anyway, we would like to use these little computers as part of our new sponsorship agreement with MatchMate, Inc. It is not critical this year, but if we can fit it into the design that would be great.

ACME: I will need to get in touch with some engineers at MatchMate and get some more information about these devices. Is there someone I can talk to about this?

Jacques: It is a small company, I can talk to their president and get a contact for you.

ACME: Fine, please email any information you find out to me.

Jacques: Sure. Incidentally, while we are talking about technology, could you explain Java™ technology to me? I was playing tennis with Scott McNealy recently and he mentioned that Java technology was perfect for my system and that I should make sure it is used on this project. Scott and I are old friends, so I would love to use his product.

ACME: Basically, Java technology refers to a language that can be used to create programs for systems like your tournament management system. We are quite versed in the Java™ programming language and Java technology.

Jacques: So you think it is appropriate for our system? I really want it to be used. Who knows, maybe Sun Microsystems will sponsor the tournament too.

ACME: We like to do a full analysis first to determine the technologies to use, but I would say that there is a good chance that Java technology will be integral to the solution.

Jacques: That is great. I will have to let Scott know.

ACME: We are getting toward the end of our interview; do you have any additional questions or concerns for me?

Jacques: Let me see. Can you have the system done in nine months so we can use it for next year's tournament? The board of directors will want it available by next years tournament.

ACME: I will have to do some further analysis to get an idea of how long it will take to create the tournament management system.

Jacques: Great. So what is next?

ACME: I will be creating a Vision document which outlines the features of the system as you have presented them to me. I will send you a copy of this document after I have finished creating it. Then, I need to interview your tournament director, two umpires, and maybe a press person to get details from their perspective. These details are put in a document called a System Requirements Specification or SRS. After the SRS has been created, Analysis has officially ended and we will be ready, with your approval, to start designing and creating your system.

Jacques: Can you do the design and development too?

ACME: Yes. We can do the full software development life cycle for you from analysis to implementation. We have got a couple great Java technology programmers on staff as well as some expert designers.

Jacques: Terrific.

ACME: Now if I could get contact information for the people I mentioned, I will be on my way.

Jacques: My assistant will give you this information on your way out.

ACME: Great. Thanks so much for your time and I look forward to working with you and your staff.

Jacques: I look forward to seeing what you produce. Please let me know if there is any more detail I can provide too.

ACME: I will be in contact. Goodbye.