Through your first interview, you were able to understand the following:

The homepage of Ace Energy should be simple and elegant. It should have no more than **five** links. An "about us" link is naturally needed and will direct the users to a page with some information about the firm, its mission and its accomplishments.

Job seekers should be able to browse the current job listing. However, Ace Energy needs to **hide employer information** so that only job nature, compensation and job length will be displayed. This helps attract job seekers to Ace's web site. The job list is created, uploaded and maintained by the system admin. If a job seeker decides to apply for a job, he/she will be directed to the registration module of the web site. Currently, the **physical form** (consultant profile form) that an applicant needs to fill out is shown in figure 1 (ATTACHED AT THE END OF THIS). ALL INFORMATION IN THE FORM SHOULD BE PRESENTED BY THE WEB PORTAL SYSTEM.

At the end of the registration process, an applicant must submit his/her resume. This file must be a word file, and will be stored on the server. Once the registration process is completed, an automatic email will be sent to the applicant's email box, confirming the success of the registration. In the meanwhile, an email will also be sent to the founder (system admin.) of Ace Energy, alerting him/her of the new applicant entry.

Employers, i.e., recruiting companies, can also come to Ace Energy portal. They will be able to view the list of current applicants --- but only title, experience and expertise information --- applicant names and contacts **cannot** be released. Other than that, they cannot do anything --- the interaction between Ace energy and employers are mainly offline, through telephones and meetings.

As the system administrator, Tom Brown expects to accomplish most of his daily management jobs through the web portal. Once logged in, Tom wants to be able to manage the current applicant pool – he wants to be able to search for an applicant by title, by location and by name. In addition, he wants to be able to view a list of all current candidates. Once he chooses a certain candidate, he should be able to pull up a resume and review in further detail. The end result of the review is a decision to put the candidate in one of four categories:

A. The default category. All applicants belong this category at the beginning
B. The "interesting" category – Tom will move someone to this category if he thinks that he/she is a potential match
C. The "highly likely" category – when Tom moves someone from category B to category C, an automatic email will be sent to the applicant's email, asking him/her for references.
D. The "consultant" category – once category C applicants passed the reference examination, Tom will recommend them to a potential employer. If the employer agrees to hire him/her, Tom will move the applicant into category D. When this happens, an automated email will be sent to the applicant, congratulating him/her

and giving him/her **an account and a password** to the portal. In the meanwhile, another automated email will be sent to the employer, giving him/her an account and a password as well.

Once an applicant becomes a consultant, i.e., gets hired by an employer, he/she will be able to go to the "consultant" link that is exclusively for consultants. The log-on screen will prompt him/her to enter account information. Once logged on, the consultant will be able to manage his/her current contract job. He/she can go to the timesheet management screen to fill out the timesheet. He/she can also go to the "itinerary" page to manage itinerary relevant to his/her consulting job, i.e., flights, hotels and car rentals, etc.

The employer, once received account information, should be able to go to the link "employer" and log on. From the main screen, he/she should be able to see the list of all consultants currently working for him/her. He/she can create, edit and finalize a timesheet for each of the consultants. He/she will also manage their itinerary by entering all flight, hotel and rental information.

Q2. Based on the above information, create a <u>USE CASE DIAGRAM</u>. And create a <u>USE CASE SPECIFICATION</u> for the use case "MANAGE CURRENT APPLICANTS" with detailed steps.

Q3. Create a <u>CLASS DIAGRAM</u> with all entity classes and their relationships. You do NOT need to design the operations or behaviors of the entity classes. You do NOT need to worry about the control and boundary classes.

Q4. Create a scenario for the use case "MANAGE CURRENT APPLICANTS" based on use cases created in Q3 and classes created in Q4. Create a <u>COLLABORATION DIAGRAM</u> for this scenario.

Q5. Create a scenario for the use case "MANAGE TIMESHEET" based on use cases created in Q3 and classes created in Q4. Create a <u>SEQUENCE DIAGRAM</u> for this scenario. MAKE SURE that you take into consideration both the creation (by the employer) and the management (by the consultant) of the timesheets.

Q6. Based on your class diagram, create a <u>RELATIONAL DATABASE MODEL.</u>

Date: **Candidate Name**:

Title

Expertise

Yrs Worked On-Shore	Yrs Worked Off-Shore

Address & Contact

Locations Desired:

Domestic	International
(Check box)	(Check box)

Locations Not Desired:

Approved Company

Company Not Interested:

Min Length contract:

Current Day Rate   **Min Accepted:**

Use Placement Firm: **If Yes, Who?**

Net Day Rate:

Comments:

Figure 1. Consultant Profile Form