

## COMM 335 SAMPLE CASE

**VolunteerUBC** is a non-profit organization that needs to recruit a large number of volunteers to conduct community surveys during the re-opening of COVID-19 restriction. To keep track of the large number of applicants and volunteers, VolunteerUBC has asked you to help them design a robust database.

### Applicants

People from around the world apply to volunteer at VolunteerUBC by filling up an application form. In this form, they need to enter their name, phone number, email, address, and availability for interviews. All this information needs to be recorded by the database.

When the VolunteerUBC HR department reviews these applications, they may also want to make some notes about certain applicants. These notes will also need to be recorded in this database. There can be *multiple entries* of notes about each applicant, entered on different days.

### Screening Process: The Interviews

HR will contact each applicant and schedule *one, or several* interviews. These could be *group or one-on-one* interviews.

To schedule an interview, we need a list of the applicants for a particular interview, as well as the date and time for the interview.

To prepare for an interview, an interviewer needs to create a list of questions to ask the applicants. During the interview, the interviewer also needs to make notes based on the applicants' answers for each of the questions asked. Each note that the interviewer makes must be specific to each question so as not to create confusion.

If an applicant is given an offer and accepts the offer, they will officially become a volunteer for the VolunteerUBC (yay!) The volunteers are given per-diem for their daily meal expenses. At this point, their application status will change to volunteer and their official start date and daily rate will be recorded.

### Training

Once an applicant becomes a volunteer, the next step is training. Each volunteer will go through several *group* training sessions to learn about how to conduct phone surveys. The date, time, and volunteer participants of these training sessions must be recorded.

### Scheduling

After training, volunteers are ready to be scheduled for their shifts. To schedule a shift, we need the date, time, and a note section to record the list of tasks to be accomplished during the shift.

### INSTRUCTIONS:

1. Using *Diagrams.net* or another tool, create the **Business Process Map** to capture the details from above.
2. Design a database to store the required data. Draw an **Entity Relationship Diagram** for the above scenario using *ERDPlus.com*.
3. Transform the **Entity Relationship Diagram** from the previous step to **Relations**. Use *ERDPlus.com* to convert the Entity Relationship Diagram into Relational Schema. Identify the **primary key** for each table and identify any needed **foreign keys**.
4. **Generate SQL** code to create this database.