PRACTICAL ASSESSMENT RESPONSES

a. SQL AND DATABASES

1. SELECT movie, mCount, FROM (SELECT COUNT(PreferredMovie) as mCount, PreferredMovie as movie FROM PreferredMovies GROUP BY PreferredMovie) as results ORDER BY mCount DESC LIMIT 1;

2. SELECT type, mCount FROM (SELECT COUNT(TypeOfMovie) as mCount, TypeOfMovie as type FROM PreferredMovies GROUP BY TypeOfMovie) as results ORDER BY mCount ASC LIMIT 1;

3. SELECT type, mCount FROM (SELECT COUNT(PreferredMovies.TypeOfMovie) as mCount, PreferredMovies.TypeOfMovie as type FROM PreferredMovies INNER JOIN FamilyMembers ON PreferredMovies.userID = FamilyMembers.id WHERE (YEAR(NOW()) - YEAR(FamilyMembers.DateOfBirth)) > 10 GROUP BY PreferredMovies.TypeOfMovie) as results ORDER BY mCount DESC LIMIT 2;

4. SELECT type, mCount FROM (SELECT COUNT(PreferredMovies.TypeOfMovie) as mCount, PreferredMovies.TypeOfMovie as type FROM PreferredMovies INNER JOIN FamilyMembers ON PreferredMovies.userID = FamilyMembers.id WHERE FamilyMembers.Gender = ‘Female’ GROUP BY PreferredMovies.TypeOfMovie) as results ORDER BY mCount DESC LIMIT 2;

5. SELECT FamilyMembers.* FROM FamilyMembers LEFT JOIN PreferredMovies ON FamilyMembers.id = PreferredMovies.userID WHERE PreferredMovies.userID is NULL;

b. MOBILE APP

1. Currently, I am developing an app that will be allowing people to borrow items online. Instead of buying something that you know are going to use for a short time, why buy it? This app will help you to search items you can borrow, use them and then return them to its owner(s).

2. **For android devices**, there are not many challenges since any operating system can develop a native android app. But we find many challenges when it comes to debug the app in the emulator. If your computer is slow, then you are going to struggle a lot. The other challenge comes when you are updating your dependencies. If you updated your SDKs and didn't update other tools, you will have problems when you will try to run your app.

   For iOS devices, the main challenge or the main problem is getting first a computer that will develop that app (Mac). But also, the programing languages are also challenging. The other challenge is that you cannot test your app in a real device before deploying it (which is the case for android apps).

3. I first tried native but then I shifted into hybrid.

4. I made this choice because hybrid apps are easy to develop and you develop them once and for all devices for only one code. But also because I don't have a Mac.

5. I am developing this app in 2 ways. For the first one, I am using ionic framework and Angular 5 which is in JavaScript. For the second, I am using Flutter framework which is developed in Dart programming language.

6. I think that HTML5 and JavaScript apps are better because they offer a much better interface since you will be using CSS OR SCSS or SASS for the style, they are light and all the packages you might need can be found easily (npm) but also they are quick to load. But the problem

is that they don't communicate very well with the mobile components like camera, storage, mic and others which the natives do better.

7.
    a. Make sure your laptop has enough memory (RAM) to handle the emulator.

    b. Make sure you have all dependencies needed and compatible versions so that they may work together.

    c. Make sure your codes are right because me, I really hate having bugs and those red scriptures.

    d. Do never ever delete code but comment them.

8. The **Emulator** is the virtual device that you install in your laptop that will help you to run and test your app just like it was in a real device but a **Simulator**, yeah well, I can't lie since I have never used it or may have used it but ignored it.

9. YES, it will.

10. –

11. I first made sure that I had my app web services and APIs running well and I made sure I installed all the dependencies needed (latest version of SDK and other android supports packages). But also I made sure I had a compatible emulator for my app.

12. SCREENSHOTS**:** I placed these in a folder named screenshots.