Name: \_Cyruz Campos \_ Due: 25 Jan Date Received: \_\_\_\_\_\_\_\_\_

For my final Java project, I want to convert my IOS application from Swift to Java and have it be functional for an android phone. The app itself is a math game that allows users to practice their skills, in addition, subtraction, multiplication, and division. They can create a username and password, so the app can only be accessed if the user has created a username and password. Once they have created that, they can log in and use the application. The overall functionality of this app is focused on children so they can practice their math in a more fun competitive way. The name of the app is called Mathiac.

In Mathiac, the user will have a login, password, and high score that is saved in parse and is all linked to that one account, the users only have access to seeing the high score and username of anyone else who has the game and can play it. The overall functionality of the game is that users created/sign-in to an account and are prompted to the game screen. There they can choose whether to practice addition, subtraction, multiplication, or division. After they have decided what subject they want to practice in, they are then prompted to a screen that gives them 50 different questions, and each question is random, every time so the user cannot just find a pattern. After they have completed their 50 questions they are brought back to the game screen that shows them how many questions they got right and how many they got wrong, then it is automatically set as a high score until a new better high score is reached. There is also a screen where it explains the overall functionality of the game.

In the Mathiac app, there are multiple classes. There is a sign-in/sign-out class that has the username and password information that will be sent to the parse database and checked if the information is matched or not. Then we have the users class that holds most of the information, like their choice, high score, total correct, total loss, etc. Next is the addition/subtraction/multiplication/division class that holds the four main classes each having their respective questions that correspond with the type of math that the user chooses, and hopefully a matchmaking could be reimplemented. The old IOS application was set for having multiplayer, except could not be done, because of the complications that IOS had when it came to connecting to other players.

