Hey guys! My final project consisted of a little game for users to guess from where and when a determined piece of art from the Metropolitan Museum of Art is from. In short, the app uses a Navigation system to guide the user through 3 different Fragments that make up the game. This way, the application has only one activity. The first fragment contains two parts: a webview that displayed the image of an art piece and two input parts that allow the user to guess a country and the year that the artpiece shown is from. The second fragment has the scores the user obtained and the last fragment is just a scrollable list to show the user's guesses.

Here's how it conforms to the stuff you guys asked for:

1) It has a user interface where users guess and then see their results
2) It has a scrollable list, recycler view in the last fragment
3) All of it is made in fragments and it works on both portrait and landscap

I use the following 4 concepts:

Mutable Live Data - quite a bit, to track how many the user got right, for countries and years, and to, more importantly, track in which turn the user is in. By knowing which turn the user is in, I fetch the image to be shown and the correct answers from the database. This is important so the turn doesnt reset if the user changes something like screen orientation.

Constraint Layout- I use it in most fragments, instead of linear Layout.

Navigation - it actually saved me because before I had the playing screen as an activity but it was hard to start a new activity to go the last two fragments. The whole app moves with Navigation, and I could have added a play again button, that leads to the initial fragment again, but I forgot.

Internal SQL database - thats how I store the data. I was originally going to make random number API calls to the Museum's API but I was incurring in an error, and when running the shown in class applications I incurred in the same error. I couldnt touch base with Beatrice, so I just used a SQL database instead. The database holds URLs, countries and years for the art pieces. I use the mutable live data to track where the user is and every time the user clicks guess, the cursor of the database observes that and goes to that row.

If I had more time, what would I improve:
I could have added a little better navigation so that the user could go back to all the guesses. Right now, they only go back to the first one. I guess I could just set the userTurn to 0. I could have added a play again button but I just rushed through the app to get back to the thesis. Lastly, most important, make API calls instead of using a sql database. Get new values everytime and store users guesses in a server to get an international score board. I really would like to develop this further in my Phd.

If you guys need me to change anything, like the above mentioned please let me know, we still have one day to the deadline. I tested it quite a bit. But if you need something lemme know, I really need to do the exam.

Beatrice, I hope your undergrad helps you get the answers correctly!