

## Lab 5B: Pig Game with Fragments

CS235AM, Intermediate Mobile Application Development: Android

### Overview

This lab will give you practice using fragments to adapt your app to different screen sizes and/or orientations.

### Part 1: Xamarin Guide: Fragments

Either write the app described in the code walk-through, or download the code (there is a zip file on this week's Moodle page) and experiment with it as you read the walk-through. Take screen shots showing how fragments are arranged differently in response to different screen orientations or size.

Note: the original walk-through used different screen sizes to load different fragments. My version (the one posted on Moodle) uses different orientations to load different fragments.

Xamarin Guide: Fragments, code walk-through:

[https://developer.xamarin.com/guides/android/platform\\_features/fragments/fragments\\_walkthrough](https://developer.xamarin.com/guides/android/platform_features/fragments/fragments_walkthrough)

## Part 2, Group B: Little Pig – A 6-sided die, landscape orientation only

Refactor your Pig game to use fragments. Fragment 1 will be an opening screen that displays instructions and asks the players for their names. It will have a “Start Game” button that launches the Activity containing Fragment 2.

Fragment 2 will contain the UI for game-play. The actual player’s names will be displayed above each score. The “New Game” button on this fragment will launch the Activity containing Fragment 1 (taking the user back to opening screen).

Fragment behavior and implementation:

- On a small screen only one fragment will be displayed at a time.
- On a large screen, both fragments will be displayed side-by-side.
- For the layouts that hold your fragments, use linear layouts.
- Load the fragments statically by specifying them in AXML.
- Disable portrait orientation.

Fragment 1

Diagram of Fragment 1 (Opening screen) UI:

- Text: "this is how you play the game ..."
- Labels: "player 1 Name" and "player 2 Name"
- Input fields: Two empty text boxes for player names.
- Button: "Start Game"

Fragment 2

Diagram of Fragment 2 (Game-play screen) UI:

- Labels: "Player 1 Score" and "Player 2 Score"
- Input fields: Two empty text boxes for scores.
- Label: "Turn" with a line for input.
- Image: A 6-sided die showing 5 dots.
- Label: "Points for this turn"
- Input field: One empty text box for points.
- Buttons: "Roll Die", "End Turn", and "New Game"

## Submission

### *Beta Version*

Post the following to the Beta + Code Review Forum:

- 1) For part 1: A document containing screen-shots of the tutorial app with each screen-shot labeled. (Please use .docx or .pdf format.)
- 2) For part 2: A zip file containing your app's Visual Studio solution folder. (Make your solution smaller by deleting the *obj* and *bin* folders.)  
Or, optionally, a link to a repository containing your solution source code. (You can put the link on the same document with the screen-shots for part 1.)
- 3) A copy of your lab instructions (so the lab partner who reviews your work will know what the requirements were for your app).

### *Production Version*

1. Items 1 and 2 above, but revised as needed.
2. The code review of your work (the one done by your lab partner) with the second column ("Release") completed by you.