CS260 Intro to Java & Android 10.AndroidAdvUI (Part II)

Winter 2014

Creating TicTacToe for Android

- Now that we have TicTacToe displayed graphically on the screen, we need to provide game play

Android Size

- When a View's constructor is called, the size is unknown.

- View size is calculated during the layout stage (i.e. after the constructor but before the draw)

- Use onSizeChanged () to be notified when values are known or changed

- getWidth () and getHeight () can be used in onDraw

Game Play

- The drawing and game play will happen in the View; therefore, keep a reference to the Game class

- Note: The main activity is in TicTacToeGame.java

```java
private final TicTacToeGame mTicTacToeAndroid;

public CustomDrawableView (Context context)
{
    super (context);
    this.mTicTacToeAndroid = (TicTacToeGame) context;
    setFocusable (true);
    setFocusableInTouchMode (true);
}
```

What if View is changed?

- In CustomDrawableView

```
@Override
protected void onSizeChanged (int viewWidth, int viewHeight,
     int oldViewWidth, int oldViewHeight)
{
  mRectangleWidth = viewWidth / (int) mNUMBER_OF_RECTANGLES;
  mRectangleHeight = viewHeight / (int) mNUMBER_OF_RECTANGLES;

  super.onSizeChanged (viewWidth, viewHeight,
                       oldViewWidth, oldViewHeight);
}
```

Override onTouchEvent

- Write the Android code necessary to override the onTouchEvent so that:

  1. The (x,y) coordinates are displayed in the LogCat window

  2. The (xTile,yTile) of the TicTacToe game are displayed in the LogCat window

Hook up your TicTacToe Java

- Get some piece of information from the TicTacToe Java game and display the info in the LogCat window after an onTouchEvent has occurred