Daily Journal

Name Dennis Nguyen

Date May 17, 2017

## Required work:

* Receive orientation data from sensors
* Draw arrows that change in size linked to degree of orientation.

# What I got done

Collected data from device accelerometer and stored it into an array with 3 elements

Converted values accelerometer to degrees

**public class** DrawView **extends** View {  
 **public** DrawView(Context context) {  
 **super**(context);  
  
 **sensorManager** = (**sensorManager**) context.getSystemService(Context.***SENSOR\_SERVICE***);  
  
 **listener** = **new** SensorEventListener() {  
 @Override  
 **public void** onSensorChanged(SensorEvent sensorEvent) {  
 **float**[] accelerometer = sensorEvent.**values**;  
 **if** (sensorEvent.**sensor**.getType() == Sensor.***TYPE\_ACCELEROMETER***){  
 accelerometer[0] = sensorEvent.**values**[0];  
 accelerometer[1] = sensorEvent.**values**[1];  
 accelerometer[2] = sensorEvent.**values**[2];  
 **degrees** = (**float**) Math.*toDegrees*(Math.*atan*(Math.*abs*(accelerometer[1]) / Math.*abs*(accelerometer[2])));  
  
  
 }  
 }  
  
 @Override  
 **public void** onAccuracyChanged(Sensor sensor, **int** i) {  
  
 }  
 };  
 }  
  
 **private float**[] **orientation** = **new float**[3];  
 **private float**[] **accelerometer** = **new float**[3];  
 **private** Sensor **sensor**;  
 **private** SensorManager **sensorManager**;  
 **private** SensorEventListener **listener**;  
 **private** MainActivity **mainActivity**;  
 **private float degrees**;  
  
  
 @Override  
 **protected void** onDraw(Canvas canvas) {  
 **super**.onDraw(canvas);  
  
 }  
  
}

# What I need to do next class

* Complete code required to collect data
* Use gathered data to draw

# What I need to do before next class

* Assessments
* Study
* Sign up for…
* Tell everyone to take CS

Daily Journal

Name Dennis Nguyen

Date May 15, 2017

## Required work:

* Receive orientation data from sensors
* Draw arrows that change in size linked to degree of orientation.

# What I got done

* Tried to implement some orientation methods to retrieve data

**public class** DrawView **extends** View {  
 **public** DrawView(Context context) {  
 **super**(context);  
 context.getSystemService(Context.***SENSOR\_SERVICE***);  
 }  
  
 SensorManager **sensorManager** = **new** SensorManager();  
 **float**[] **orientation** = **new float**[3];  
 **float**[] **accelerometer** = **new float**[3];  
 SensorActivity **sensorActivity** = **new** SensorActivity();  
  
  
 @Override  
 **protected void** onDraw(Canvas canvas) {  
 **super**.onDraw(canvas);  
 getContext().getSystemService(Context.***SENSOR\_SERVICE***);  
 **accelerometer** = Sensor.***TYPE\_ACCELEROMETER***;  
 **orientation** = **sensorActivity**.*getOrientation*(**sensorManager**.*getRotationMatrix*(**null**, **null**, Sensor.***TYPE\_ACCELEROMETER***, Sensor.***TYPE\_MAGNETIC\_FIELD***), **orientation**);  
 }  
  
}

# What I learned

* getOrientation() returns 3 values: pitch, roll, and azimuth. All 3 corresponding to the XYZ plane

# What I need to do next class

Continue researching android orientation and receive data from the sensors

# What I need to do before next class

* Assessments
* Study
* Sign up for…
* Tell everyone to take CS