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Project plan 1

My major is environmental studies, not something that first comes to mind when you think of TAM. But as a student finishing up my minor this semester, I can definitely attribute to the fact the natural world and technological world do not always need to be separate. For my first app I wanted to incorporate the idea of energy efficiency. When it comes to human energy usage nowadays, conservation is doubtful. So, technological advances can offer us other solutions. Whereas conservation requires people to give up a habit like turning off the lights, efficiency offers LED lightbulbs that can last 40x the amount of the incandescent but use 1/10 of the amount of energy.

The app would ask whether certain things around the house are conventional or energy star approved. Energy star is a certification that certain appliances receive if they are above a certain level of efficiency. Depending on what the users pick and choose in the app will give them a rating on how efficient their appliances are. It would be hard to keep this simple, so I am thinking I would use project 1 as a stepping-stone to project 2. I definitely want to incorporate price as a factor because money is one of the most significant incentives we know. Whereas more efficient products have bigger upfront costs, over time they cost less and offer paybacks. I also want to give people suggestions based on their ratings about where to go next, how to find more efficient products, etc.

First I would have an image and segmented controls that are connected. One of the controls says “conventional AC” and when clicked the image shows a snowflake.

The other side of the segmented control then says “efficient AC” and when clicked shows a snowflake with a energy star label:

Along with the image, information will pop up in a textbook explaining the numerical data regarding whichever segment the user chooses. For the air conditioners, here is the average information I have gathered with Denver’s electricity rate of $0.113/kwh:

	Conventional	Energy Star
Upfront cost	$170	$220
Energy efficiency ratio (EER)	9.8	10.8
Energy consumption/*lifetime*	5,767 kWh	5,233 kWh
Energy cost/*lifetime*	$537	$488

Payback time	n/a	7.5 years
Lifecycle energy saved	n/a	534 kWh
Air pollution reduction	n/a	822 lb/CO2

So, whereas the conventional cost less to start, the efficient appliance saves money and energy as it continues through its lifetime, until the money saved forms a payback. If somebody were to keep that efficient air conditioner for 7.5 years then it would pay itself back. There are also positive environmental implications.

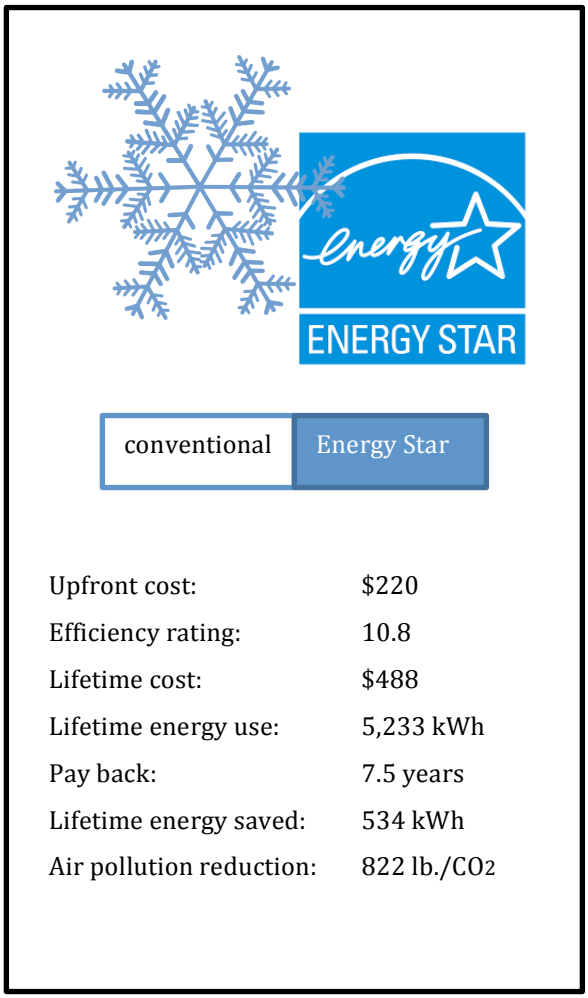
When I move onto project 2 I will apply the single-view app to many other appliances. I also want a switch that can turn off the segmented control and allow users to compare the information of each side by side. I will do green font for cheaper and red for more expensive and green for environmental benefit. I might incorporate a switch but my app already seems pretty busy. But I want to get as many UI's done with each type of appliance as I can for project 1. Basically, I want to get as much as I can done for this and move onto recommendations later, using GPS.

```
@IBOutlet weak war descriptionImage: UIImageView!
@IBOutlet weak var textRight: UILabel!
@IBOutlet weak var textLeft: UILabel!
@IBOutlet weak var energySwitch: UISegmentedControl!

@IBAction func changeInfo (sender:
        UISegmentedControl){
   if energySwitch.selectedSegmentIndex==0{
      textRight.text="$170…"
      descriptionImage.image=UIImage(named:
     "conventional")  }
   else energySwitch.selectedSegmentIndex==1{
      textRight.text="$220…"
      descriptionImage.image=UIImage(named:
     "energystar")  }
```

I notice here how my text that I want to show up, consists f an entire column of text, so I can either make a bunch of separate labels, or just code them to show up spaced out, one after another, and in a column. For the switch, when it is on, I want it to cancel out the segmented control so the data for both conventional and energy star pop up for comparison. Like we used with a slider in class, I won't utilizea slider here but when the switch it on, the font shrinks so it will all fit. I also want to change the image to a default when the switch is turned on.

```
textLeft.numberOfLines =  6;
textRight.numberOfLines = 6;
```



```
@IBOutlet weak war comparisonSwitch: UISwitch!

@IBAction func updateComparison (sender: UISwitch){
      if comparisonSwitch.on{
          descriptionImage.image=UIImage(named: "default")
          textLeft.text="$170…"
          textRight.text="$220…"

          textLeft.minimumFontSize = 8;
          textRight.minimumFontSize = 8;

          textLeft; adjustsFontSizeToFitWidth = YES;
          textRight; adjustsFontSizeToFitWidth = YES;


//I researched and tried to find code for turning off the segmented control when the switch is on.
But I don't want the segemented control to be visibly hidden because it shows that the
conventional data is in textLeft and the efficient data in textRight. I simply want its functions
disabled when the switch is on.

          if ([sender selectedSegmentIndex] ==0){
                    button.hidden.NO;
          }
          else {
          [self dListMethod];
          }
}
```