

Getting Started with Assignment 3c

COMP 550.001 Fall 2017

This walks you through the changes you need to make to implement your Dynamic Programming scheme in the seam carving program. You should put your code in the function `findBestSeam` within the `ImageMatrix` class.

```
/**
 * Finds the best seam using Dynamic Programming and the energy
 * measure of the pixels.
 */
public void findBestSeam() {
    // TODO: Replace this with your code!
    this.chooseRandomColumnSeam();
//    this.chooseRandomSeam();
}
```

To do this, you should use the provided function `getEnergy`, which returns the “energy” of the pixel at (i,j) , which is a measure of the cost to remove that pixel from the image.

```
/**
 * Returns the "energy" of the pixel at (i,j), which gives the cost
 * of removing this pixel from the image.
 * @param i - the x-coordinate of the pixel
 * @param j - the y-coordinate of the pixel
 * @return The energy associated with pixel (i,j)
 */
public int getEnergy(int i, int j) {
    ...
}
```

Two example seam calculation methods are provided for you: `chooseRandomColumnSeam`, which returns a random column as the seam, and `chooseRandomSeam`, which returns a random seam that is not constrained to a single column.

Finally, to run the simulation, you can choose the `imageName` parameter in `Main.java`. You can also modify `removeFraction` to change how many seams will be removed.