UNIX Like Operating Systems

1. Permissions
   a. List permissions 1 through 7 and what they do.
      i. 1
      ii. 2
      iii. 3
      iv. 4
      v. 5
      vi. 6
      vii. 7

   b. What does chmod do?

   c. What does chown do?

   d. Give an example of changing permissions on a file or directory.

   e. Give an example of recursively changing permissions on a directory and the files it contains.

   f. Give an example of using "find" to change permissions on all files in a directory

   g. Please explain what each column in the following means.
      i. -rw-rw-r-- 1 root admin 21508 Jul 1 04:34 .DS_Store

Django Models & Queries

2. Models
   a. What is the diffrence betwen ./manage.py migrate and ./manage.py schemamigration, can you give an example of how each would be used?
   b. Give an example of a field on a model for each of the following data types.
      i. Integers

      ii. Floats

      iii. Strings

   c. Name and give an example of each of the three types of "Relationship Fields"
      i. one to one relationship

      ii. many to many relationship

      iii. one to many relationship

3. Queries
   a. Assume the following models exist in your main/models.py file, and all migration work has been done.

```
class State(models.Model):
    name = models.CharField(max_length=100, unique=True)
    abbreviation = models.CharField(max_length=2, null=True)

    def __unicode__(self):
        return self.name


class City(models.Model):
    name = models.CharField(max_length=100)
    county = models.CharField(max_length=100)
    state = models.ForeignKey("main.State")
    latitude = models.FloatField(null=True)
    longitude = models.FloatField(null=True)

    def __unicode__(self):
        return self.name
```

   b. Write a query that only returns cities in a specific county.

   c. Write a query that returns all states, and another query that returns all cities.

   d. Write a query that returns all states that have names that start with the letter A

   e. Write a query that only returns one state of a specific name.

Write a very basic model, view and url.

models.py

views.py

urls.py