**ACS-1904 W2024**
**Lab 1: Watering Schedule**

1) Developed a Java class called *`WateringSchedule.java`* that will be used to control the watering schedule of plants in a greenhouse.

   Two parallel arrays are used to keep a record of all the plants in the greenhouse along with their ID numbers. The arrays look like this:

   ```
   int[ ] id = new int[7];

   String[ ] plantName = {"Beans", "Peppers", "Cacti", "Kelp",
   "Garlick", "Peas", "Thyme"};
   ```

   There's another array called:

   ```
   String[ ] sundayWatering = new String[id.length];
   ```

   This array will be used to store the names of all of the plants that should be watered on Sunday.

   Plants with ID numbers ending in 1 are watered on Monday, ID numbers ending in 2 on Tuesday, etc.. Until we get to plants with ID numbers ending in either 7, 8 or 9 which are watered on Sunday.

   Your Java class must carry out each of the following tasks.

   a) Using a static method, load the id array with 4-digit numbers, that is random numbers between 1001 and 9999. Ensure that the randomly generated ID number does not end in a 0.

   b) Add all of the Sunday plants to the `sundayWatering[ ]` array according to the criteria described above. You can use a static method to do this if you wish but it is not required.

   c) Print the list of plants and their ID numbers, see the sample output below. Again, use a static method if you wish but it is not a requirement.

   d) Print the list of Sunday plants, this time you must accomplish this task using a static method. Note that you are to print only the names of the plants, not their ID number.

Sample output:

```
*** Rincewind's Greenhouse ***

7287. Beans
8909. Peppers
9044. Cacti
5108. Kelp
6103. Garlick
7808. Peas
9299. Thyme
```

```
****************************
Sunday Watering List
****************************

Beans
Peppers
Kelp
Peas
Thyme

end of processing
```

When you are satisfied that your program works properly submit *`WateringSchedule.java`* by attaching it and uploading it.

Don’t forget to include your name and student ID number in a comment block at the top of the Class file.