The `Appointment` class is used to store information about a person's scheduled appointments. A partial declaration of the `Appointment` class is shown.

```
public class Appointment
{
   /**
    *  Returns the status of the appointment ("free", "busy", etc.)
    */
   public String getStatus()
   { /* implementation not shown */ }

   /**
    *  Returns the room number of the appointment location
    */
   public int getRoomNumber()
   { /* implementation not shown */ }

   /* There may be instance variables, constructors, and methods
      that are not shown. */
}
```

The `Schedule` class maintains a two-dimensional array of appointments that represents a person's schedule. A partial declaration of the `Schedule` class is shown.

```
public class Schedule
{
   private Appointment[][] sched;

   /**
    *  Returns the index of a column containing the fewest occurrences
    *  of the status indicated by the parameter target
    *  Preconditions: sched is not null and no elements of sched are null.
    *                 sched has at least one row and at least one column.
    */
   public int columnWithFewest(String target)
   { /* to be implemented */}

   /* There may be instance variables, constructors, and methods
      that are not shown. */
}
```

When an element of the two-dimensional array `sched` is accessed, the first index is used to specify the row and the second index is used to specify the column.

Write the `Schedule` method `columnWithFewest`. The method should return the index of a column in `sched` that contains the fewest occurrences of the parameter `target`. If there are multiple columns that have the fewest number of occurrences of `target`, any of their column indices can be returned.

Suppose `sched` has the following contents. For each element, the first value is the appointment status and the second value is the room number.

	0	1	2	3	4
0	"free" 100	"free" 100	"free" 100	"busy" 206	"busy" 204
1	"free" 100	"free" 100	"busy" 304	"busy" 206	"busy" 202
2	"hold" 201	"busy" 105	"busy" 205	"free" 100	"busy" 205
3	"busy" 204	"free" 100	"busy" 310	"hold" 110	"free" 100
4	"busy" 204	"hold" 201	"hold" 310	"busy" 105	"free" 100
5	"busy" 105	"busy" 208	"hold" 310	"busy" 105	"free" 100

For these contents of `sched`, the expected behavior of `columnWithFewest` is as follows.

- The call `columnWithFewest("busy")` should return `1` because `"busy"` appears two times in column `1` and more than two times in each of the other columns.
- The call `columnWithFewest("free")` should return either `2` or `3` because `"free"` appears one time in column `2`, one time in column `3`, and more than one time in each of the other columns.
- The call `columnWithFewest("hold")` should return `4` because `"hold"` appears zero times in column `4` and one or more times in each of the other columns.

Complete method `columnWithFewest`.

```
/**
 *  Returns the index of a column containing the fewest occurrences
 *  of the status indicated by the parameter target
 *  Preconditions: sched is not null and no elements of sched are null.
 *                 sched has at least one row and at least one column.
 */
public int columnWithFewest(String target)
```