A Card ADT

This is a **pair** exercise and must be competed in your **tutorial** or **lab** with your partner.

Having trouble? Try the *A Complex ADT* warmup.

This week, we're looking more at ADTs. In the lectures, we (briefly) introduced a fun card game called *The Final Card-Down* (thus named because the first person to put their final card down, wins!).

In this activity, you will be implementing the Card ADT.

Download `Card.h`, or copy it into your current directory on a CSE system by running

```
$ cp /web/cs1511/17s2/week09/files/Card.h .
```

Don't change *Card.h*! If you do, you are likely to be eaten by a grue.

For reference, here are some pictures of cards from *The Final Card-Down*.

You can see that they have a number on them (one hexadecimal digit, i.e. 0 through F). They also have a color. Only some of the pictures have a suit (you should use your imagination on the others to pretend those cards also have a symbol on them).

Download `Card.c`, or copy it into your current directory on a CSE system by running

```
$ cp /web/cs1511/17s2/week09/files/Card.c .
```

You should implement the functions specified in the ADT interface. If you want, you could try doing so without the stub code provided; otherwise, we've provided enough code to make `Card.c` compile.

As an ADT implementation, `Card.c` **should not** contain a `main` function. You should also write some tests; see the *Testing a Card ADT* activity.

To run some simple automated tests:

```
$ 1511 autotest cardADT
```

To run Styl-o-matic:

```
$ 1511 stylomatic Card.c
Looks good!
```

You'll get advice if you need to make changes to your code.

Submit your work with the *give* command, like so:

```
$ give cs1511 wk09_cardADT
```

Or, if you are working from home, upload the relevant file(s) to the `wk09_cardADT` activity on Give Online.