

Specification

Copy the program [AmusementRide.java](#) to your computer and add your own class that extends *class AmusementRide*.

Note: [AmusementRide.java](#) contains two classes (*class FerrisWheel* and *class RollerCoaster*) that provide examples for the class you must create.

Your class must include the following.

- Implementations for all of the abstract methods defined in *abstract class AmusementRide*.
- At least one static class variable and at least one instance variable that are not defined in *abstract class AmusementRide*.
- Override the inherited *repair()* method following the instructions given in the *repair()* method comment block.
- Override the inherited *toString()* that returns a *String* representation of your ride objects. The *String* must contain the *String* returned from the inherited *toString()* method.

The *main()* method in *abstract class AmusementRide* must keep the *class FerrisWheel* and *class RollerCoaster* objects. The *main()* method must also keep the following behavior:

```
// pseudo-code...
obj.load()
if (obj.start())
    obj.stop()
obj.repair()
```

However, you must change the *main()* method to use polymorphism. [hint: array]

The first six lines of the program's output must match the following.

```
Ferris wheel "The Billy Preston" has capacity of 50 and costs $6.28
...height: 100; # of spins: 0
mechanics are on strike
Roller coaster "for(;;) Young" has capacity of 32 and costs $3.14
...maxSpeed: 99; trackLength: 25; whiplashFactor: 1.618
mechanics are on strike
```

Example Output

CSC205 student Edith Foogooman created *class BumperCar* and she named her ride "Self-driving Bumpers". The output of her program looked as follows.

```
Ferris wheel "The Billy Preston" has capacity of 50 and costs $6.28
...height: 100; # of spins: 0
mechanics are on strike
Roller coaster "for(;;) Young" has capacity of 32 and costs $3.14
...maxSpeed: 99; trackLength: 25; whiplashFactor: 1.618
mechanics are on strike
Bumper cars "Self-driving Bumpers" has capacity of 17 and costs $6.28
...weight: 13; speed: 8; os: Linux
Self-driving Bumpers has been loaded
Self-driving Bumpers has started
Self-driving Bumpers has stopped
Self-driving Bumpers has been repaired
```