

10. Ship , CruiseShip , and CargoShip Classes

Design a `Ship` class that the following members:

- A field for the name of the ship (a string)
- A field for the year that the ship was built (a string)
- A constructor and appropriate accessors and mutators
- A `toString` method that displays the ship's name and the year it was built

Design a `CruiseShip` class that extends the `Ship` class. The `CruiseShip` class should have

the following members:

- A field for the maximum number of passengers (an `int`)
- A constructor and appropriate accessors and mutators
- A `toString` method that overrides the `toString` method in the base class. The `CruiseShip` class's `toString` method should display only the ship's name and the maximum number of passengers.

Design a `CargoShip` class that extends the `Ship` class. The `CargoShip` class should have the

following members:

- A field for the cargo capacity in tonnage (an `int`)
- A constructor and appropriate accessors and mutators
- A `toString` method that overrides the `toString` method in the base class. The `CargoShip` class's `toString` method should display only the ship's name and the ship's cargo capacity.

Demonstrate the classes in a program that has a `Ship` array. Assign various `Ship` , `CruiseShip` ,

and `CargoShip` objects to the array elements. The program should then step through the array, calling each object's `toString` method.

(pochtivě ukradeno z knihy Starting out with Java Early Objects)