[Polymorphism] In the prob2 package of your workspace, you are given a Main class and three fully implemented classes: FirstClass, BusinessClass and EconomyClass. The classes FirstClass, BusinessClass, and EconomyClass represent different types of customers that an airline service may have. Each contains a method computeBoardingTime which computes the boarding time for the current customer. Notice that the computeBoardingTime method is implemented in different ways in each of the classes.

The Main class is used for accumulating information about multiple customers – in particular, the Main class can be used to store several customers and then compute the average boarding time across all of these stored customers, using the method computeAverageBoardingTime.

The method computeAverageBoardingTime has been provided to you but has been implemented in the wrong way: It checks the runtime type of each customer, casts it to the right type, and then calls the computeBoardingTime on each type. Your task for this problem is to rewrite this method so that the computation of average boarding time is done *polymorphically*. This requirement implies that your implementation *does not check* the runtime types of the customers in the object array. To satisfy this requirement, you *will need to create and use an interface* BoardingTime, which has been provided for you in your prob2 package; the interface BoardingTime that has been given to you contains no methods; you must add an appropriate method to this interface.

You <u>are allowed to</u> make changes to the type of the object array objs in the main method, and also to the type of the argument of the method computeAverageBoardingTime. You <u>are allowed to</u> make changes to the class declaration of the classes FirstClass, BusinessClass, EconomyClass, but you <u>are not allowed to</u> modify the computeBoardingTime method in any of these classes.

Test your work by running the main method of Main. The expected output is provided in the Main class.