



Figure 10.1 Collaboration diagram for the ‘Maintain bike list/Add bike scenario’

user’s menu selection into a message to an object. Normally every use case will have an interface object and a control object. The control object handles the sequencing of events in the execution of the use case.

Figure 10.1 shows a collaboration diagram for the ‘Add bike’ scenario of the ‘Maintain bike list’ use case.²

We have added a control object, `:MaintainBike`, and an interface object, `:MaintainBikeUI`, to the ‘Maintain bike list’ collaboration. The sequence of events during the execution of the scenario is initiated by a message from the user to the control object (via a higher-level `MainMenuUI` object, see footnote) and then completely controlled by the control object.

The interaction between the actor and the objects is as follows:

- The Administrator selects the Add bike option from a welcome screen
- This choice goes (via a `MainMenuUI` object) to the control object `:MaintainBike`
- The `:MaintainBike` creates a new interface object `:MaintainBikeUI`
- The Administrator enters details of the bike he wants to add on the interface object’s screen
- The interface object passes these details to the control object
- The control object passes the bike details to the `Bike` object.

2. Strictly speaking, the `addBike()` call would be to a `MainMenuUI` object, as an actor wouldn’t be able to call directly into the controller class. For simplicity the `MainMenuUI` object is omitted.