```
Model1::Collaboration1::Interaction1::SignUp
       sd SignUp
                                                                         3 : show()
                                                        :SignUpUI
                                                                                                                             :SignUp
                                                                                     1 : startInterface()
        Actor: UnsignedUser REGIST
                                                                                                         2.1.1 : addMember(id, pw, pn)
                                                                             :MemberCollection
                                             :Member
                                                                                              2.1.1.1 : Member(id, pw, pn)
```

```
Model1::Collaboration2::Interaction1::Log-in
      sd Log-in
                                                                                                     3 : show()
                                                                                                                          1 : startInterface()
                                                          2 : login(id, pw)
                                                                                                                                               :Login
                                                                                    :LoginUI
          Actor: Member(Admin, SignedUser)
                                                                                                            2.1 : login(id, pw)
                                                                                                                           2.1 : findMember(id, pw)
                                                                                                 :MemberCollection
                                                                                                                                                  :SessionManager
```

```
Model1::Collaboration3::Interaction1::Log-out
sd Log-out
                                                                                     3 : show()
                                                                                                      2.1 : execute()
                                              2 : logout()
                                                                     :LogoutUI
                                                                                                                        :Logout
 Actor: Member(Admin, SignedUser)
                                                                                           1 : startInterface()
                                                                                                                  2.1.1 : logout()
                                                                                                  :SessionManager
```

```
Model1::Collaboration4::Interaction1::Register
  sd Register
                                                                                 2.1 : execute()
         UNR
                                                         :RegisterBicycleUI
                                                                                                     :RegisterBicycle
                                                                                                                                                 :Bicycle
                                                                                1 : startInterface()
                                                                                                  :BicycleCollection
                                                                                                                                            newBicycle:Bicycle
                                                                                                                    2.1.1.1 : Bicycle(id, name)
```

