

Application Development & Modelling

BSc in Applied Computing

Produced
by

Eamonn de Leastar (edeleastar@wit.ie)

Department of Computing, Maths & Physics
Waterford Institute of Technology

<http://www.wit.ie>

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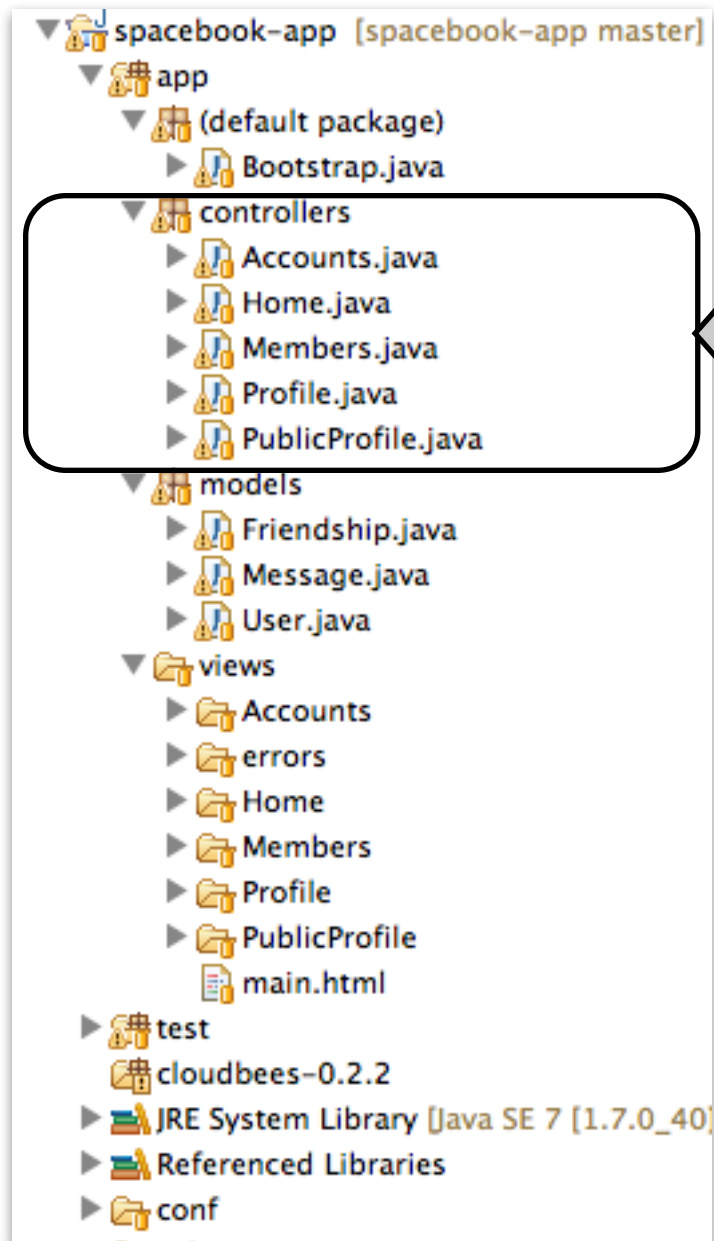


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Spacebook Controllers

Controllers



- Controllers accept all HTTP ‘requests’
- Requests are initiated by user:
 - placing url in browser address bar
 - clicking on a link
 - submitting a form
- Requests result in methods in controllers being called
- These methods are called “Actions”

Accounts

```
# Landing page
GET / Accounts.index

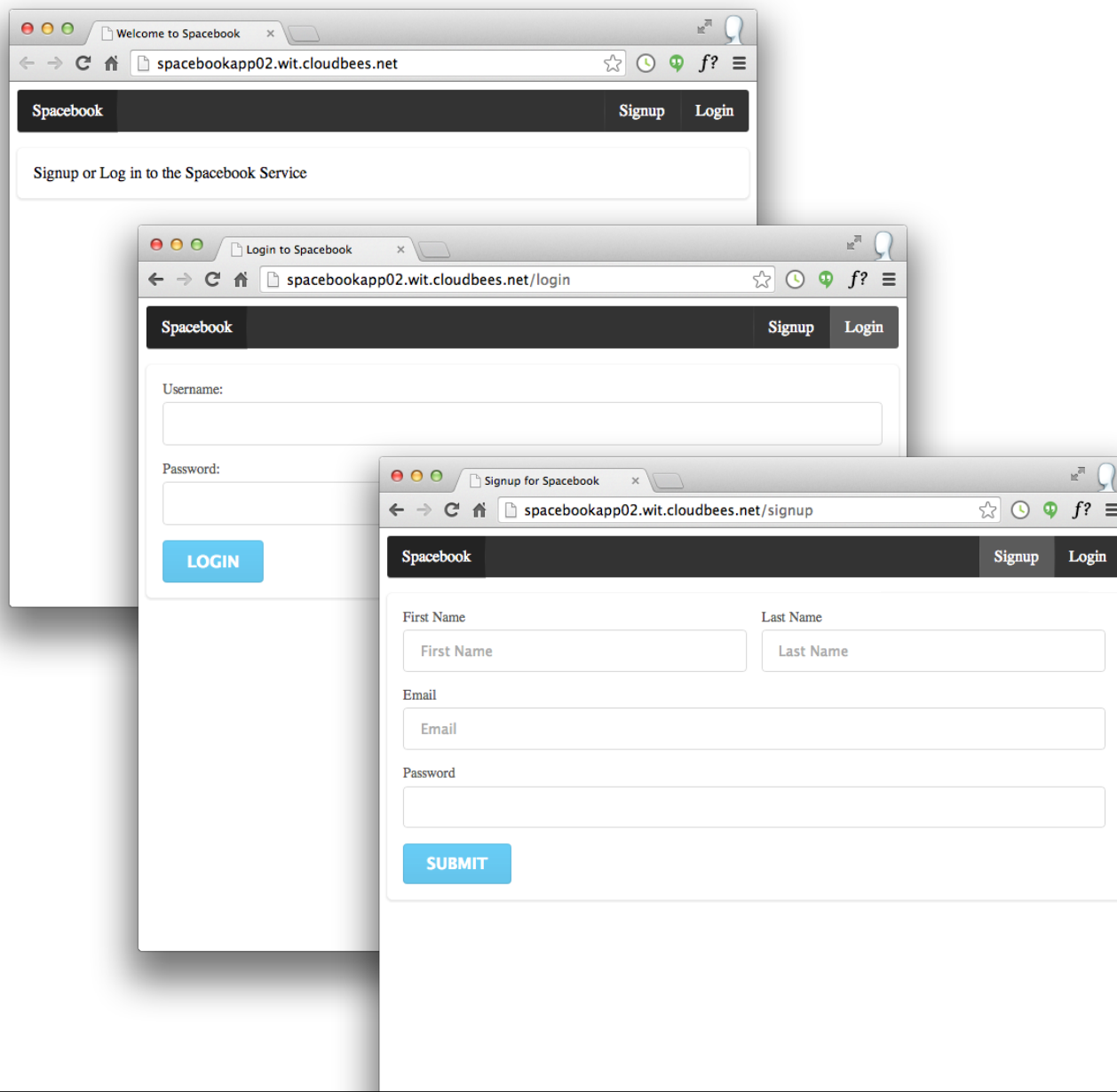
# Accounts
GET /signup Accounts.signup
GET /login Accounts.login
GET /logout Accounts.logout
```

```
public class Accounts extends Controller
{
    public static void signup()
    {
        render();
    }

    public static void login()
    {
        render();
    }

    public static void logout()
    {
        session.clear();
        index();
    }

    public static void index()
    {
        render();
    }
    //...
}
```



Accounts

Accounts

POST /authenticate

Accounts.authenticate

POST /register

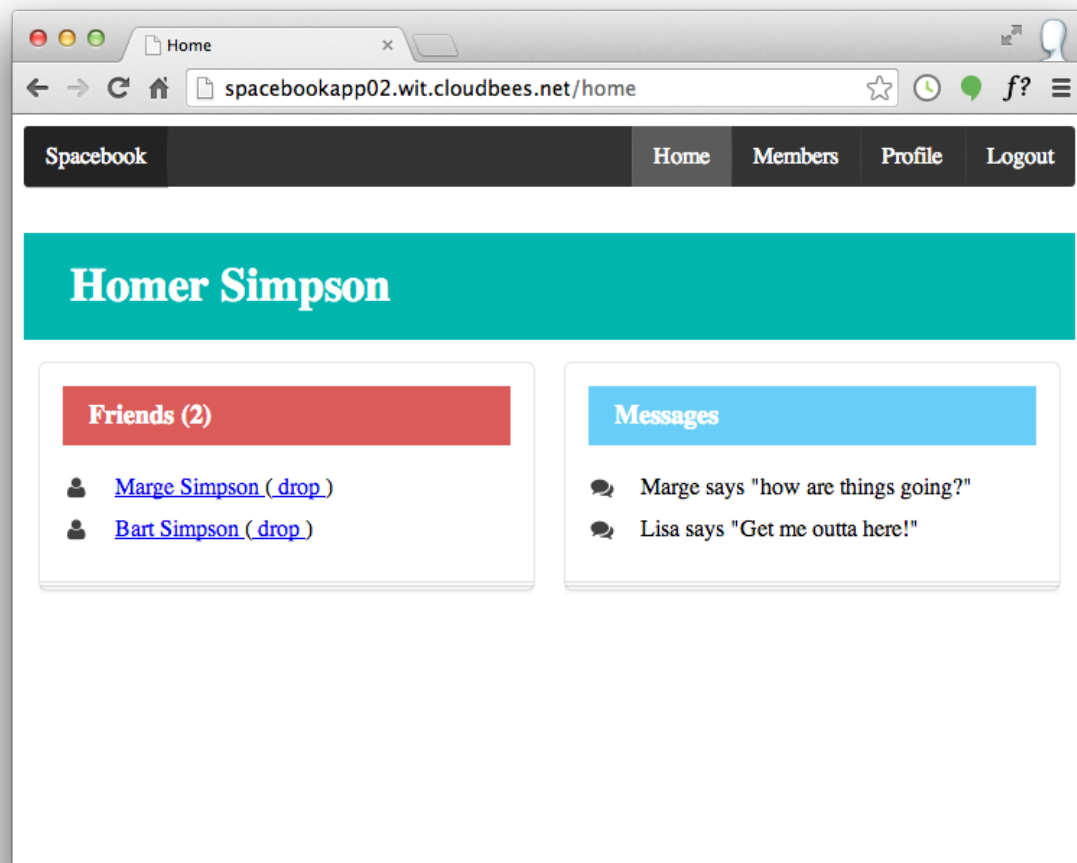
Accounts.register

```
public static void register(String firstName, String lastName, int age,
                           String nationality, String email, String password, String password2)
{
    Logger.info(firstName + " " + lastName + " " + email + " " + password);
    User user = new User(firstName, lastName, email, password, age, nationality);
    user.save();
    index();
}

public static void authenticate(String email, String password)
{
    Logger.info("Attempting to authenticate with " + email + ":" + password);

    User user = User.findByEmail(email);
    if ((user != null) && (user.checkPassword(password) == true))
    {
        Logger.info("Authentication successful");
        session.put("logged_in_userid", user.id);
        Home.index();
    }
    else
    {
        Logger.info("Authentication failed");
        login();
    }
}
```

Home



Home page

GET /home

Home.index

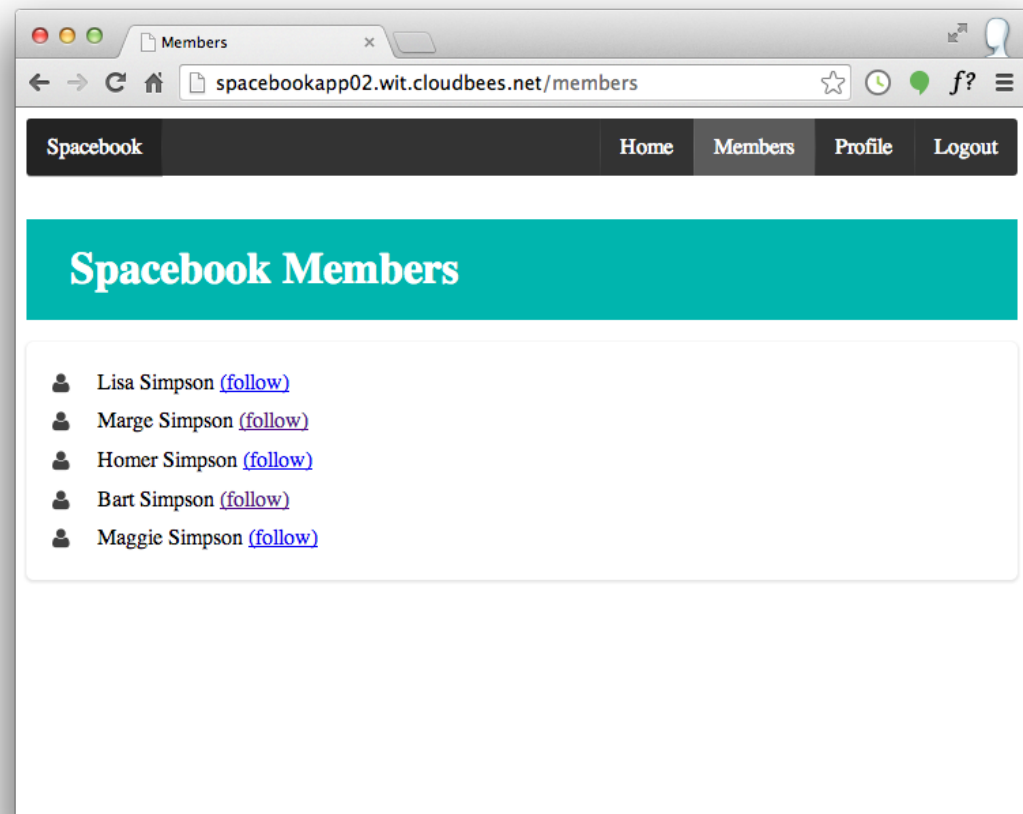
GET /home/drop/{id}

Home.drop

```
public class Home extends Controller
{
    public static void index()
    {
        User user = Accounts.getLoggedInUser();
        render(user);
    }

    public static void drop(Long id)
    {
        User user = Accounts.getLoggedInUser();
        User friend = User.findById(id);
        user.unfriend(friend);
        Logger.info("Dropping " + friend.email);
        index();
    }
}
```

Members



Members page

GET /members

Members.index

GET /members/follow/{id}

Members.follow

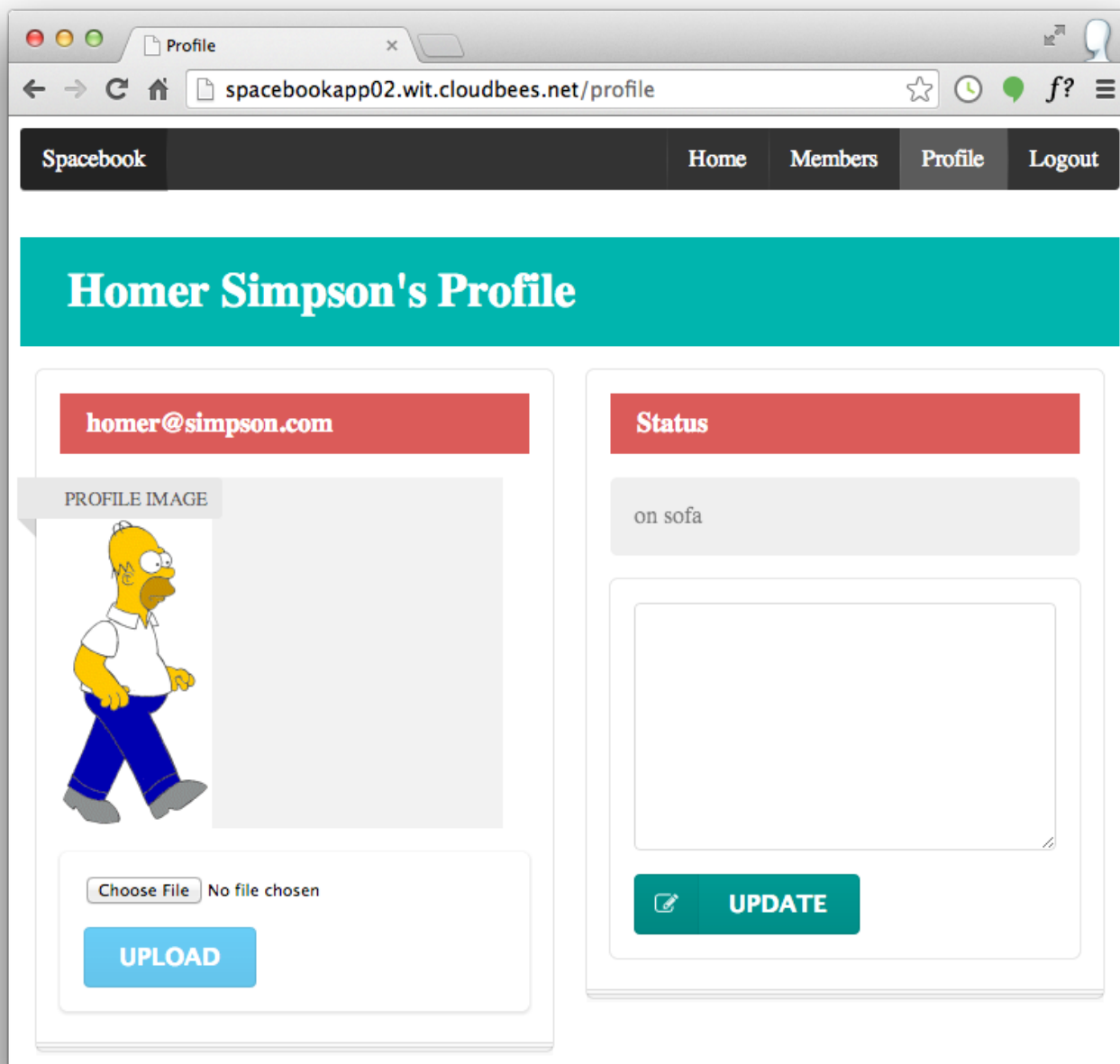
```
public class Members extends Controller
{
    public static void index()
    {
        User user = Accounts.getLoggedInUser();
        List<User> users = User.findAll();
        render(users);
    }

    public static void follow(Long id)
    {
        User user = Accounts.getLoggedInUser();
        User friend = User.findById(id);
        user.befriend(friend);
        Home.index();
    }
}
```

Profile

Profile page

GET	/profile	Profile.index
POST	/profile/changestatus	Profile.changeStatus
POST	/profile/uploadpicture/{id}	Profile.uploadPicture
GET	/profile/getpicture/{id}	Profile.getPicture



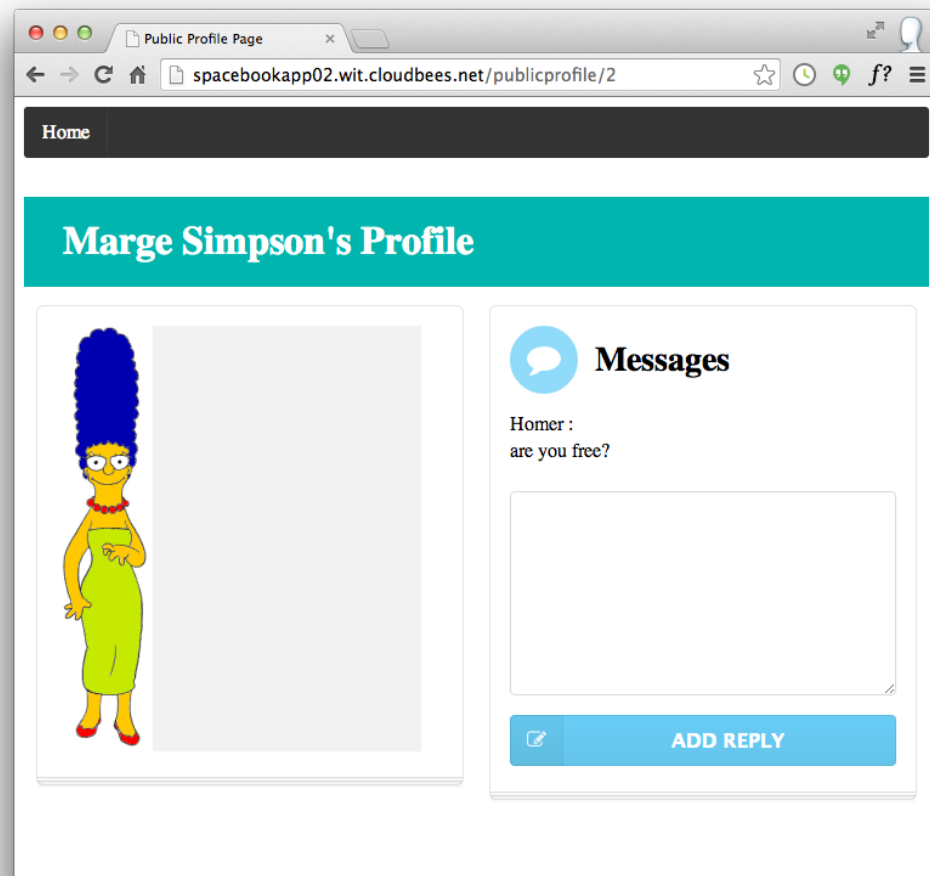
```
public class Profile extends Controller
{
    public static void index()
    {
        User user = Accounts.getLoggedInUser();
        render(user);
    }

    public static void changeStatus(String statusText)
    {
        User user = Accounts.getLoggedInUser();
        user.statusText = statusText;
        user.save();
        Logger.info("Status changed to " + statusText);
        index();
    }

    public static void getPicture(Long id)
    {
        User user = User.findById(id);
        Blob picture = user.profilePicture;
        if (picture.exists())
        {
            response.setContentTypeIfNotSet(picture.type());
            renderBinary(picture.get());
        }
    }

    public static void uploadPicture(Long id, Blob picture)
    {
        User user = User.findById(id);
        user.profilePicture = picture;
        user.save();
        Logger.info("saving picture");
        index();
    }
}
```


PublicProfile



Public Profiles

GET	/publicprofile/{id}	PublicProfile.visit
POST	/publicprofile/sendmessage/{id}	PublicProfile.sendMessage

```
public class PublicProfile extends Controller
{
    public static void visit(Long id)
    {
        User currentUser = Accounts.getLoggedInUser();

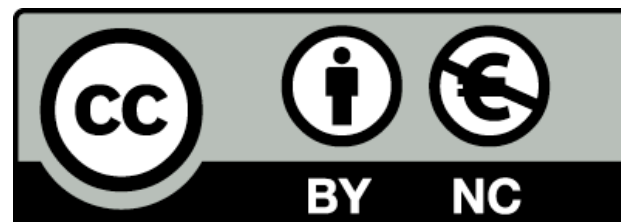
        User user = User.findById(id);
        Logger.info("Just visiting the page for " + user.firstName + ' '
                    + user.lastName);

        render(user);
    }

    public static void sendMessage(Long id, String messageText)
    {
        User fromUser = Accounts.getLoggedInUser();
        User toUser = User.findById(id);

        Logger.info("Message from user " +
                    fromUser.firstName + ' ' + fromUser.lastName + " to " +
                    toUser.firstName + ' ' + toUser.lastName + ": " +
                    messageText);

        fromUser.sendMessage(toUser, messageText);
        visit(id);
    }
}
```



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