UARK – Fall 2014 – Software Engineering Project – Raphael da Silva

FeeFiFoFanner Schedule Generator

Specification of User's Security Pages

Registration.php

```
✓read: email, password, password_confirmation
✓else if email doesn't contain '@', notify and stop
✓else if password = null, notify and stop
✓else if password_confirmation ≠ password, notify and stop
✓go to RegistrationProcessing.php
```

RegistrationProcessing.php

```
✓receive from Registration.php: email, password
✓salt ⟵ random integer from 100000 to 999999
✓confirmation_code ⟵ random string of 8 characters
✓encrypted_password ⟵ sha1(salt + password)
 if email is already in Registration, suggest ResendCode.php and stop
 if email is already in User, suggest ForgotPassword.php and stop
✓insert into Registration: email, encrypted_password, salt, confirmation_code
 send e-mail with confirmation code
✓if e-mail not sent, stop and suggest send your code again goes to ResendCode.php
 notify (confirmation code sent)
✓go to EmailConfirmationForm.php
```

EmailConfirmationForm.php

```
✓read: email, entered_confirmation_code
 receive from RegistrationProcessing.php: email (to autofill form)
✓if confirmation_code is null, notify
✓else if email doesn't contain '@', notify
✓go to EmailConfirmationProcessing.php
 resend code goes to ResendCode.php
```

EmailConfirmationProcessing.php

```
✓receive from EmailConfirmationForm.php: email, entered_confirmation_code
✓reg ⟵ row in Registration that contains email
✓if reg = null, notify and stop (email not registered)
✓if reg.code ≠ entered_confirmation_code, notifiy and stop (wrong code entered)
✓if email is already in User, notify (email already confirmed)
✓copy username, password, salt from reg to User
✓delete reg
✓notify (registration successfully done)
✓go to Login.php
```

ResendCode.php

```
✓reads: email
 receive from EmailConfirmationForm.php: email (to autofill form)
✓go to ResendCodeProcessing.php
```

ResendCodeProcessing.php

```
✓receive from ResendCode.php: email
✓confirmation_code ⟵ random string of 8 characters
✓if email is not in Registration, notify and stop (not registered or already confirmed)
✓user ⟵ row in Registration that contains email
✓user.code ⟵ confirmation_code
 send e-mail with code confirmation
✓notify (confirmation code sent)
✓go to EmailConfirmationForm.php
```

Login.php

```
✓read email, entered_password
 receive from EmailConfirmationFormProcessing.php: email (to autofill form)
✓if email doesn't contain '@', notify and stop
✓else if password = null, notify and stop
 forgot password goes to ForgotPassword.php
 go to LoginProcessing.php
```

LoginProcessing.php

```
✓receive from Login.php: email, entered_password
✓user ⟵ row in User that contains email
✓if user = null, notify and stop (email not registered)
 if user = null and email is Registration, notify (email not confirmed)
✓get password, salt, temp_password from user
✓if sha1(salt + entered_password) = password, go to Main.php
 else if sha1(salt + entered_password) = temp_password, go to ResetPassword.php
 else notify and go to Login.php (password is wrong, it is case sensitive, etc)
```

ForgotPassword.php

```
read email
if email doesn't contain '@', notify and stop
go to ForgotPassword.php
```

ForgotPasswordProcessing.php

```
receive from ForgotPassword.php: email
temp_password = random string of length 8
encrypted_temp_password = sha1(temp_password)
user ⟵ row in User that contains email
user.temp_password ⟵ encrypted_temp_password
send e-mail with code temporary password
notify (new password sent)
go to Login.php
```

ResetPassword.php

```
receive from LoginProcessing.php: email
read password, password_confirmation
if password = null, notify and stop
else if password_confirmation ≠ password, notify and stop
go to ResetPasswordProcessing.php
```

ResetPasswordProcessing.php

```
receive from ResetPassword.php: password, email
salt ⟵ random integer from 100000 to 999999
encrypted_password ⟵ sha1(salt + password)
user ⟵ row in User that contains email
user.salt  ⟵ salt
user.password ⟵  encrypted_password
go to Login.php
```

Main.php

```
receive email from LoginProcessing.php
...
```