

### 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, notify and stop (resend code?)
- ✓ if email is already in User, notify and stop (forgot password?)
- ✓ insert into Registration: email, encrypted\_password, salt, confirmation\_code  
send e-mail with confirmation code  
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 ResetCode.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, notify 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

### ResetCode.php

- ✓ reads: email  
receive from EmailConfirmationForm.php: email (to autofill form)
- ✓ go to ResetCodeProcessing.php

### ResetCodeProcessing.php

- ✓ receive from ResetCode.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 stop

### 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
- ...