

Use Case #5: User Account Creation

GENERAL CHARACTERISTICS

| | |
|-----------------------------------|--|
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| Last Update: | 9/25/2016 |
| Scope | Backend of HypeU event discovery service |
| Level | User level |
| Status | Under review |
| UML Diagram | See page 3 of 'UML Diagrams.pdf' |
| Primary Actor | Guest |
| Secondary Actors | Database |
| Stakeholders and Interests | <ul style="list-style-type: none">• Guest: Wants to create account in order to follow events and organizations, and get updates for them• Event Admin User: Wants users to attend events in order to keep track of attendees, as well as ensure everyone is kept up to date |
| Preconditions | Guest belongs to a university (has a university domain), university information exists in database |
| Success Post Condition | User account is successfully created, user information is written to the database, email address is verified |
| Failed Post Condition | An error message is sent the client indicating the failure (insecure password, email issue, etc) |

MAIN SUCCESS SCENARIO (or basic flow)

| Step | Action |
|------|---|
| 1 | User arrives at 'Create Account' screen |
| 2 | User enters an email address for which an account does not already exist |
| 3 | User enters name |
| 4 | User enters a password that meets the security requirements |
| 5 | User re-enters a confirmation password that matches the previously entered password |
| 6 | User selects university from list of universities |
| 7 | User enters a valid email address |
| 8 | Password is hashed and sent to the server, along with the name, university, and email |
| 9 | Account details are stored in database |
| 10 | Verification email is sent to user email address |
| 11 | User clicks link in verification email |
| 12 | User account is verified on the backend and user is now allowed to log in |

EXTENSIONS or Alternate Flows

| Step | Branching Action |
|------|---|
| 2a | User enters an email address that exists in the database <ul style="list-style-type: none">1. Backend sends error message that email address is taken |

- 4a User enters a password that does not meet the security requirements
 - 1. Backend sends an error message that password does not meet security requirements
- 5a User enters a confirmation password that does not match the previously entered password
 - 1. Backend sends error message that passwords do not match
- 7a User email does not exist
 - 1. Backend tries to send verification email
 - 2. Verification email bounces back
 - 3. User information in database gets removed after some time
- 7b An error occurs while sending the verification email
 - 1. Backend sends an error message that the verification email failed
- 11a User receives verification email, but does not click verification link
 - 1. User information in database gets removed after some time

SPECIAL REQUIREMENTS

| Req Num | Requirement |
|------------|--|
| 1 | Backend should gracefully handle any invalid data |
| 2 | Backend should securely store sensitive user information |

TECHNOLOGY AND DATA VARIATIONS LIST

| Var Num | Variation |
|------------|--|
| 1 | Name field should allow special characters |

FREQUENCY OF OCCURRENCE: Quite frequently (at least at first) because we want most of our users to have an account with us, so that event organizers can keep track of the events.

OTHER ISSUES

| Issue Num | Issue |
|--------------|---|
| 1 | How strongly should we enforce password security? |