

Incident Tracker



Justin Hellsten & Michael Burnie

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REVISIONS

A complete list of revisions can be found in our Github organization:

<https://github.com/JustMikeHellBurn/AdvancedWebProject2>

Version	Date	Contributors	Description of Changes
1.0	2014/04/14	Michael Burnie	<ul style="list-style-type: none">- Ready for deployment- Added Documentation
0.80	2014/04/14	Justin Hellsten	<ul style="list-style-type: none">- Fix issue where you could enter any old password and still change the password- Fix issue where create event form was not disappearing if the issue is set to resolved
0.77	2014/04/14	Justin Hellsten	<ul style="list-style-type: none">- Added dummy data into database. You can import the dummy data by using the hellsten_project2.sql in the scripts directory.
0.76	2014/04/14	Justin Hellsten	<ul style="list-style-type: none">- Fixed issue for account settings page where you could change anything unless you change the password
0.75	2014/04/14	Justin Hellsten	<ul style="list-style-type: none">- register_success.php page styled to the same theme as the register page- The whole site is responsive
0.74	2014/04/13	Justin Hellsten	<ul style="list-style-type: none">- Website is now responsive- Fixed 404 page- Added title and description to all pages- Fixed issue where you can change your password to nothing
0.73	2014/04/13	Michael Burnie	<ul style="list-style-type: none">- Merged conflicts
0.72	2014/04/13	Justin Hellsten	<ul style="list-style-type: none">- Removed unused files, some were bad, example constants.php in web resources was conflicting with constants.php in libraries
0.71	2014/04/13	Justin Hellsten	<ul style="list-style-type: none">- Edit Issue create event button now says "Create event"- jquery and jquery validation links set to use CDN- 404 Page styling applied

0.7	2014/04/13	Justin Hellsten	<ul style="list-style-type: none"> - Fixed issue with create issue page textarea - Applied dashboard form styling to edit issue - Change all includes to require - Removed all single line database connection calls, to use db_connect.php in libraries - Provided comments to all files - Change redirect statements with variables when possible
0.65	2014/04/13	Michael Burnie	<ul style="list-style-type: none"> - Made textarea on create issue slightly larger.
0.64	2014/04/13	Michael Burnie	<ul style="list-style-type: none"> - Added Customer Information and Incident ID sections to edit_issue - Old tickets may not have a submittedByID, but new tickets will now - Changed/added colours for status rows - Larger textarea in edit_issue
0.63	2014/04/13	Michael Burnie	<ul style="list-style-type: none"> - Fixed bug where Resolution field was showing even if ticket wasn't closed - Fixed bug where creating a new event was still possible after the ticket had been closed - Fixed bug where the textarea placeholder would ask for a resolution even though the bug wasn't being switched to resolved/closed
0.62	2014/04/13	Justin Hellsten	<ul style="list-style-type: none"> - Fixed issue with footer height to adjust during window resize - Fixed issue where mysqli close was giving error in footer on the live server - Applied styling to create issue page - Index page redirects to view issues page
0.61	2014/04/12	Justin Hellsten	<ul style="list-style-type: none"> - Fixed an issue where create a new event wasn't being displayed. - Applied styling view_issues, edit_issues tables, different colors represents the status or heading - Made sure all dashboard files use require for header and footer, and cleaned up PHP echos where not needed.

			- Moved all database connections to close in the footer, before they were closed before including the footer
0.6	2014/04/12	Justin Hellsten	<ul style="list-style-type: none"> - Fixed issue with dashboard nav where pipes caused it to look like you were clicking the next link over. - Removed unused web_resources files admin_login.php, admin_logout.php, *.orig - Account Settings fully functional. User can modify/update username, email, user type, and password. Requires input of new password and confirmation. - Account Settings Page CSS Styling applied. - Added db_connect.php to libraries. Included in dashboard_header, purpose to allow web_resources to access database for convenience
0.51	2014/04/12	Michael Burnie	- Comments added throughout the system, including comment headers on many pages
0.5	2014/04/12	Michael Burnie	<ul style="list-style-type: none"> - Added resolution field to edit_issue - The comment field becomes a resolution field as well when the status is set to either "Closed" or "Resolved" - In the above state, the ability to enter new events is revoked as well - A "Show All Incidents" checkbox has been added to view_issues, whereby all "Closed" issues are hidden by default unless this is checked. Note that this does not hide "Resolved" issues. - Removed a font that was 404'ing
0.42	2014/04/12	Michael Burnie	- Hopefully fixed conflicts
0.41	2014/04/12	Michael Burnie	- Fixed bug where priorities weren't showing
0.4	2014/04/12	Michael Burnie	<ul style="list-style-type: none"> - Added create issue and ims_incident pages - You can now create an entirely new issue - Major fixes to view_issues and edit_issue, including where status/assignedTo wasn't showing most recent - You can assign a ticket to nobody

0.3	2014/04/12	Michael Burnie	<ul style="list-style-type: none"> - New column: assignedToID in incidentEvents table. This determines who the event is assigned to, and ultimately who the incident is currently assigned to - edit_issue now allows you to create new events, which includes some validation as comments are required (ims_event.php) - edit_issue now shows all required information, including a robust event list - View issues now shows the most recent status, and who the ticket is assigned to
0.27	2014/04/11	Justin Hellsten	<ul style="list-style-type: none"> - Fixed bug with mysql_real_escape which allowed anyone to bypass security by registering any user, followed by entering no username or password during login - Deleted images that are not used
0.26	2014/04/11	Michael Burnie	<ul style="list-style-type: none"> - Changes to view_issues to add a query string - Added edit_issue.php
0.25	2014/04/11	Justin Hellsten	<ul style="list-style-type: none"> - Site Security, prevent non-register users from accessing the dashboard - User session saved when registered or log in - Common header added to dashboard pages, nav links: View Issues, Create Issue, Account Settings, Log Out; and welcome message right side
0.24	2014/04/11	Justin Hellsten	<ul style="list-style-type: none"> - Register form can now register users - Login forms (both index.php and on the register page) can log in users - Created register success page, that displays name of user and links them to the dashboard page - Basic validations on username, password, and email fields on the PHP side when registering users, failed validation redirects to the registers page
0.23	2014/04/10	Justin Hellsten	<ul style="list-style-type: none"> - Added user type to registration form - Added jquery validation to form, custom error messages are set for each field - Added styling to custom error messages (appear on the right side of the input fields)

0.22	2014/04/10	Justin Hellsten	<ul style="list-style-type: none"> - Added social icons for Justin and Michael in the register's footer page - Copyright text added to the register's footer page. Justin and Michael link to their respected websites. - Database connection added to dashboard_header.php
0.21	2014/04/10	Michael Burnie	<ul style="list-style-type: none"> - Built simple view_issues.php page
0.2	2014/04/10	Justin Hellsten	<ul style="list-style-type: none"> - Added Already Signed Up Form on the right side of the register.php page - Border line added to distinguish between the two forms (register and login) - Footer background (tile pattern) added
0.14	2014/04/10	Justin Hellsten	<ul style="list-style-type: none"> - Change Register to Sign Up! - Register page form now has username, email, password, confirm password input fields, and a register button. - Blue/White theme applied.
0.13	2014/04/10	Justin Hellsten	<ul style="list-style-type: none"> - Change title to Incident Tracker. - Created js folder and added jquery 1.10.0 and login.js for login submission. - Register button added and placed next to login button, and styled the same as the login button. - Margin left padding added to flush the buttons with the input fields.
0.12	2014/04/10	Justin Hellsten	<ul style="list-style-type: none"> - Added database constants to connect to remote database server on justinhellsten.com - Added register page
0.11	2014/04/09	Justin Hellsten	<ul style="list-style-type: none"> - Added login page and applied styling
0.1	2014/04/08	Justin Hellsten	<ul style="list-style-type: none"> - Added .htaccess to remove php extensions at the end, and to redirect .php url enteries without it - Added ErrorDocument in .htaccess file to redirect to 404.php if file or directory is missing, or directory is forbidden - Created login page with styling

DESCRIPTION

The Incident Tracker is a simple web-based Help Desk software that allows users to view, create and edit incidents. Creating an incident involves setting a title, a description of the incident, and a priority value. These incidents can then be assigned to users in the system. Any changes made to incidents are recorded, such as status changes and communication between users using the comment system. Once an incident has been closed or resolved, a resolution must be filled in by the user to provide details on how the issue was solved.

In order to access this functionality, users must login or register through our portal; otherwise, they cannot access any of the pages as they are locked by sessions. Once the user is logged in, they can begin to view, create, and edit incidents.

DESIGN




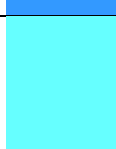

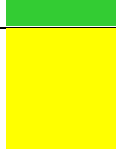
The Incident Tracker is a web-based solution with a PHP backend. This allows for scalability, consistency, and security, as there are many common elements throughout the system. The design is fairly simple, as there are few fields that are required to enter. Incident Tracker automatically generates many fields for the user, as this solution is targeted towards those that may not be familiar with more complex incident management systems.

Various colours are used throughout Incident Tracker, which is particularly useful for showing the different statuses on the View Issues and Edit Issue pages. For fonts, various Google Fonts are in use.

The Incident Tracker also uses security and validation to ensure data is correct. People cannot view any pages aside from the log in or register pages unless they have a user session (which requires login credentials). Forms are also validated against incorrect input, ensuring data integrity.

Status Colours

Rows on the view/edit issues pages and on the Event List are coloured depending on the corresponding status. These colours are as follows:

Status	Color Hex	Color Swatch
Closed	#808080	
Need Information	#FF0066	
In Progress	#3399FF	
Resolved	#66FFFF	
Assigned	#33CC33	
NEW	#FFFF00	

DETAILS

This section describes various features and functionality in more detail.

Incident/Issue/Ticket

Incidents (or Issues/Tickets) are the primary objects in the system. They are problems that a certain user or group is facing, which could be anything from requiring information to something being broken. They are used to document changes and updates to the issue, until it is finally resolved or closed. Several incidents are usually open at once, which are listed on the [View Issues](#) page in a table format.

User

A user is anyone who uses the system. This requires them to have credentials to log in and use the Incident Tracker.

Status

The status of the ticket determines the next course of action or what is currently going on with the ticket. They can be used as the customer sees fit, but there are general guidelines to follow.

There are currently 6 different states, with the following guidelines:

NEW: The ticket has just been created and may require more information.

Assigned: The ticket has been assigned, but no work has been done on it yet.

In Progress: Work is in progress but not complete.

Need Information: Information is required to whomever the ticket is assigned.

Resolved: The issue has been resolved and the customer should ensure that it is.

Closed: The issue is closed and requires no further feedback.

Events

Events can be created on the [Edit Issue](#) page. They determine the ticket's current state and who the ticket is assigned to. An event must be associated with a comment and a contributor, which is recorded into the [Event List](#).

Event List

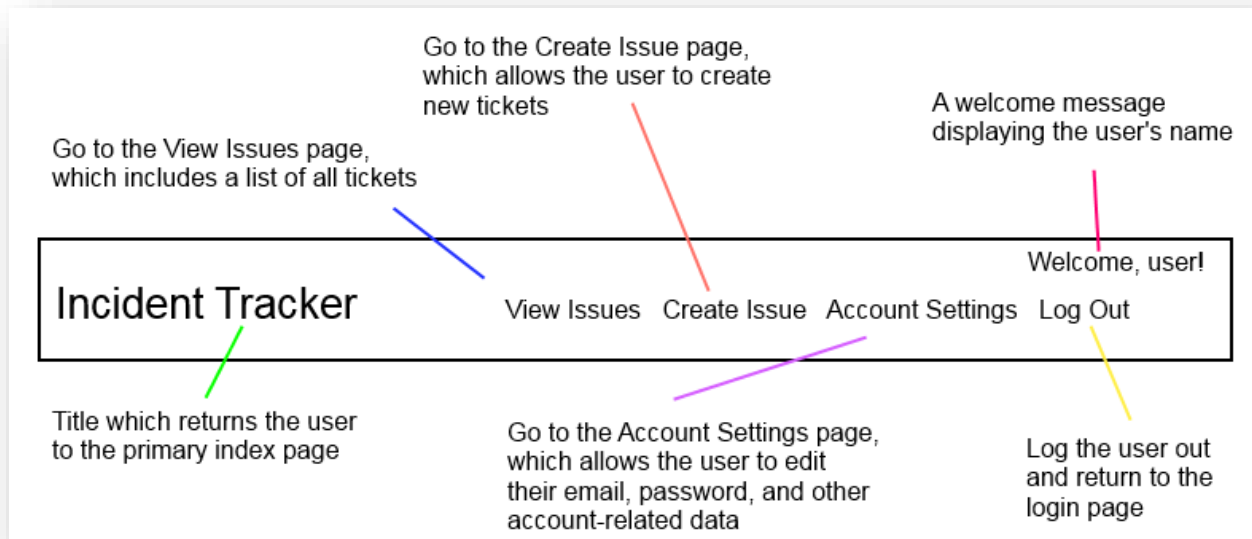
The Event List can be seen on the [Edit Issue](#) page. This feature records every change made to the ticket, such as status updates and comments. The timestamp of the event is recorded, as well as the user who initiated the event. When a new user is assigned to the ticket, they can see past developments from the Event List, so they can be quickly brought up to speed. These events cannot be edited.

advanceweb.justinhellsten.com/project2
comp2068.michaelburnie.com/project2

WIREFRAMES

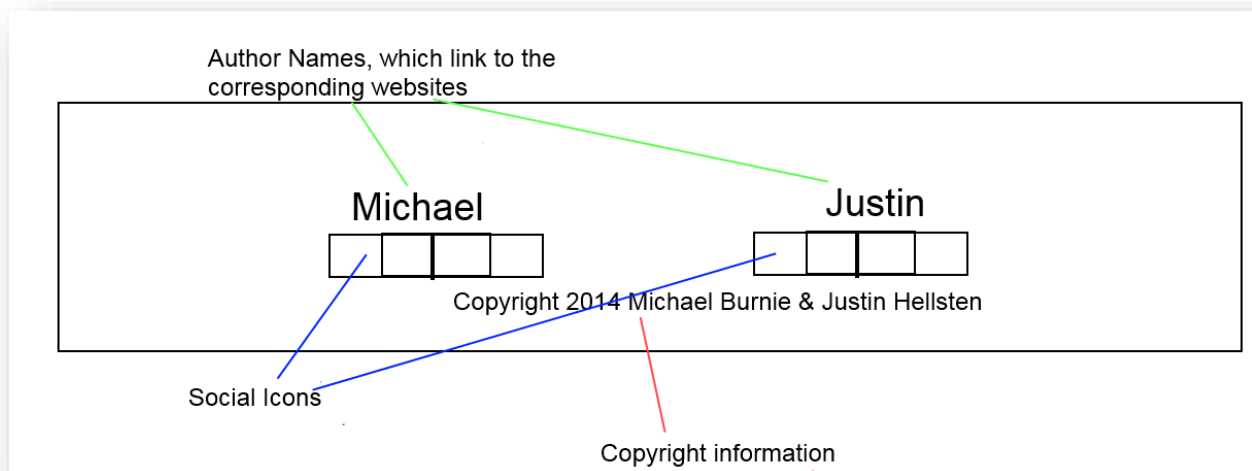
NAVIGATION

*Included on each page as it is part of the template



FOOTER

*Included on each page as it is part of the template



REGISTER/LOG IN

The user must enter a unique username and email, as well as provide a password in order to register into the system. Validation is used to ensure that passwords match and that the username/email isn't already registered.

Register	Log In
Username: <input type="text" value="Johnny"/>	Username: <input type="text"/>
Email: <input type="text" value="me@me.com"/>	Password: <input type="text"/>
Type: <input type="text" value="Admin"/> <input type="checkbox"/>	<input type="button" value="Log In"/>
Password: <input type="password" value="*****"/>	
Confirm Password: <input type="password" value="*****"/>	
<input type="button" value="Create Account"/>	

Create Account button which registers the user into the database, allowing them to log in and view/create/edit issues.

Log In button which is used by users who have already registered to view/create/edit issues.

VIEW ISSUES

The Incident ID is the primary identifier for the incident ticket. This can be clicked by the user to view or edit the ticket. The View Issues table is sorted by this value, with the highest number on top

This checkbox will hide or show closed incident tickets depending on whether or not it is checked.

The Status of the ticket which identifies the latest stage the ticket has entered. These states have different representations, and they will determine the colour of the row to distinguish tickets.

The Priority of the ticket determines how serious the incident is. In our scenario, the higher priority number means it is more important. Currently, only 1-3 are in use.

View Issues

☐ Show All Incidents

Incident ID	Title	Timestamp	Status	Assigned To	Priority
14	My cellphone broke!	2014/04/08 08:35:42	NEW		1
12	Printer is jammed again	2014/04/07 12:13:14	Assigned	John Doe	2
11	My laptop has been very slow	2014/04/07 09:19:29	Need Information	Steve the guy	1
8	Primary database needs to be backed up	2014/04/04 12:00:05	In progress	DebraH	2

The Title of the incident ticket which briefly describes the issue. The user can click this title to view or edit the ticket.

The Timestamp which is generated upon creation of the ticket, in YYYY-MM-DD HH:MM:SS format

The user to which the ticket is assigned to. This user must report and change the status/add comments to determine the next course of action.

CREATE ISSUE

The diagram shows a 'Create Issue' form with the following fields and annotations:

- Title:** A text input field containing 'Laptop is slow'. A green line points to this field with the annotation: 'The title of the incident, which briefly summarizes the problem'.
- Description:** A text input field containing 'My laptop has been very slow...'. A blue line points to this field with the annotation: 'The description of the incident, which goes into detail about the problem'.
- Priority:** A numeric input field containing '1'. A yellow line points to this field with the annotation: 'The priority of the incident; higher values mean higher priority'.
- Create Issue:** A button. A brown line points to this button with the annotation: 'Create Issue button, which sends the information to the database and creates the issue'.

EDIT ISSUE

The title of the incident ticket, which briefly summarizes the issue

Unique Incident ID number, the unique identifier for the incident.

Non-editable values about the incident

The timestamp of when the ticket was created

The current status of the ticket, which determines the row colour throughout the system for this ticket

The priority value (1-3) for this incident

A description for the incident

Information about the customer, automatically populated by the system when the ticket is created

Resolution field only appears when ticket status='closed' or 'resolved'

Create a new Event

Assign to:

Status:

Select a new user to assign this incident ticket to. This list is populated with all of the users in the system, and the user the ticket is assigned to is automatically selected.

(this is hidden when status='closed' or 'resolved')

Select a new status for the ticket to have. This list is populated with the different status types, and the current status is automatically selected as the current value.

The comment field is mandatory anytime a user wishes to update the status or 'assign to' user. Any changes to the incident must include a comment. If the status is set to 'closed' or 'resolved', the hint changes and the user is prompted to enter a resolution to the ticket, which gets shown in the above section. The New Event section is hidden upon submitting the resolution.

Enter a comment...

Submit

Submit the new event, which prompts validation and enters the data into the events table in the database.

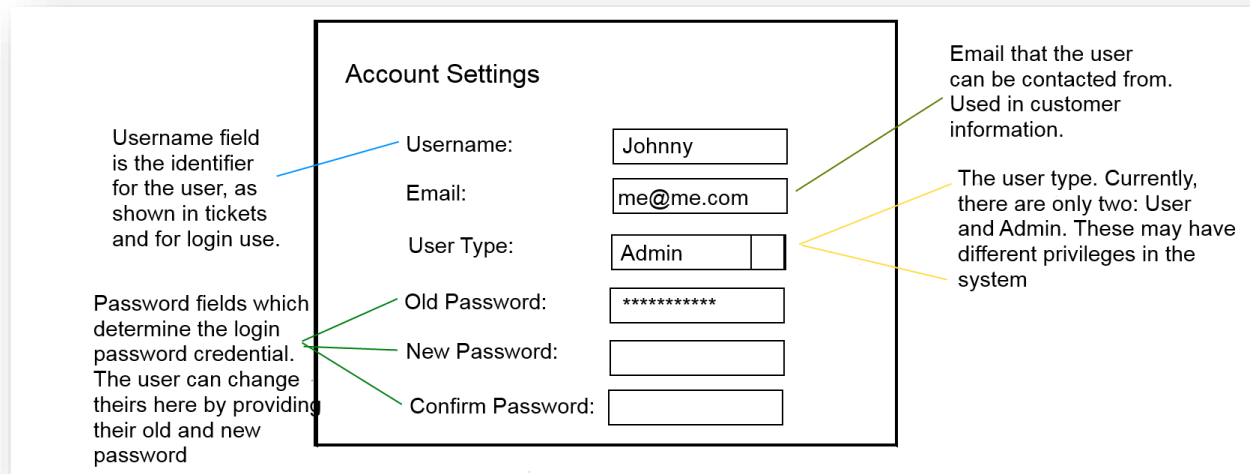
Event List for Incident 20

Event ID	Status	Comment	Timestamp	Assigned To	Changed By
56	Assigned	Assigned to Billy the IT guy	2014-04-13 12:04:56	Billy IT	Johnny
52	NEW	Issue created	2014-04-13 12:00:12		Johnny

Event List for the incident

This table is populated with all of the events that are listed above, with some that are generated depending on certain actions. For example, the Issue Created event will be created automatically once the ticket has been created. The Timestamp and Changed By columns are generated automatically for each event.

ACCOUNT SETTINGS



The image shows a web form titled "Account Settings" with several input fields. Annotations with colored lines point to specific fields: a blue line points to the "Username" field, a green line points to the "Old Password" field, another green line points to the "New Password" field, and a third green line points to the "Confirm Password" field. A yellow line points to the "User Type" dropdown menu. To the right of the form, there are two text annotations: one pointing to the "Email" field and another pointing to the "User Type" dropdown.

Account Settings

Username:

Email:

User Type:

Old Password:

New Password:

Confirm Password:

Username field is the identifier for the user, as shown in tickets and for login use.

Password fields which determine the login password credential. The user can change theirs here by providing their old and new password

Email that the user can be contacted from. Used in customer information.

The user type. Currently, there are only two: User and Admin. These may have different privileges in the system

SCREEN CAPTURES

LOG IN



The screenshot shows a web application titled "Incident Tracker". It features a login form with two input fields: "Username" and "Password". Below the password field are two buttons: "Log In" and "Sign Up!". The form is set against a dark background with a light-colored header and footer. The footer contains copyright information for 2014 and links to the authors' websites.

Incident Tracker

Username

Password

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REGISTER

Incident Tracker

Sign Up Now!





User Types Admin ▾

Create my account





Already Signed up? Report incidents now!

Log In

Michael



Justin



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VIEW ISSUES

Hide Closed Incidents

Incident Tracker

[View Issues](#) | [Create Issue](#) | [Account Settings](#) | [Log Out](#)





Welcome, Admin!

View Issues





Show All Incidents ☐

Incident ID	Title	Timestamp	Status	Assigned To	Priority
9	My laptop is slow	2014-04-13 08:29:37	NEW		1
8	The building is on fire!	2014-04-13 07:57:30	Assigned	pyrue	3
7	How do I work this?	2014-04-13 07:55:07	Need Information		1
6	This thing is broken!	2014-04-13 07:54:07	In progress	user	2
4	Another Issue	2014-04-12 19:45:48	Resolved		2

Michael



Justin



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Show All Incidents

View Issues

Show All Incidents ☒

Incident ID	Title	Timestamp	Status	Assigned To	Priority
9	<u>My laptop is slow</u>	2014-04-13 08:29:37	NEW		1
8	<u>The building is on fire!</u>	2014-04-13 07:57:30	Assigned	pyrue	3
7	<u>How do I work this?</u>	2014-04-13 07:55:07	Need Information		1
6	<u>This thing is broken!</u>	2014-04-13 07:54:07	In progress	user	2
5	<u>title</u>	2014-04-13 00:36:13	Closed		1
4	<u>Another Issue</u>	2014-04-12 19:45:48	Resolved		2
3	<u>Something else broke</u>	2014-04-12 19:09:17	Closed	user	3
2	<u>The printer is broken!</u>	2014-04-12 18:56:20	Closed	user	2
1	<u>test</u>	2014-04-10 14:04:36	Closed	pyrue	1

CREATE ISSUE

Incident Tracker

[View Issues](#) | [Create Issue](#) | [Account Settings](#) | [Log Out](#)

Welcome, Admin!

Create Issue

Title:

Description:





Describe your issue...

Priority:





1 ▾

Create issue

Michael



Justin



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EDIT ISSUE

New

Incident Tracker

View Issues | Create Issue | Account Settings | Log Out

Welcome, Admin!

My laptop is slow

Incident ID:	9
Date Submitted:	2014-04-13 08:29:37
Status:	NEW
Priority:	1
Description:	Ever since I clicked on that download link...
Customer Information:	ID: 1 Username: admin Email: admin@admin.com Type: Admin

Create a new Event

Assign To:

Status:

Enter a comment...

Submit

Event List for Incident 9

Event ID	Status	Comment	Timestamp	Assigned to	Changed by
24	NEW	Issue created	2014-04-13 08:29:37		admin

Michael

Justin

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Closed

Incident Tracker

[View Issues](#)
[Create Issue](#)
[Account Settings](#)
[Log Out](#)

Welcome, Admin!

test

Incident ID:	1
Date Submitted:	2014-04-10 14:04:36
Status:	Closed
Priority:	1
Description:	this thing isn't working
Customer Information:	ID: 1 Username: admin Email: admin@admin.com Type: Admin
Resolution:	Closed

Event List for Incident 1

Event ID	Status	Comment	Timestamp	Assigned to	Changed by
13	Closed	Closed	2014-04-12 19:44:40	pyrue	admin
12	Resolved	resolved	2014-04-12 19:44:30	pyrue	admin
3	Assigned	It's your problem now, Justin	2014-04-12 18:30:06	pyrue	admin
2	Assigned	Changed the status to assigned	2014-04-12 18:25:14		admin
1	NEW		2014-04-12 18:25:14		admin

Michael

Justin

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ACCOUNT SETTINGS

Incident Tracker

[View Issues](#) | [Create Issue](#) | [Account Settings](#) | [Log Out](#)

Welcome, Admin!

Account Settings

Username

Email

User Types

Admin ▾

Old password

New password

Confirm password

[Update profile](#)

Michael



Justin



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POTENTIAL FUTURE FUNCTIONALITY

The following is a list of features that could be implemented in the future:

- 1) Search filter for incidents, allowing users to search keywords in descriptions, titles, and comments.
- 2) Currently, we have two user types: **User** and **Admin**. These user types don't have any special privileges over each other, but in the future, we can limit status changes to Admins only, for example. Admins may also be able to edit closed tickets.
- 3) A new database structure could add to the complexity of the system. Although our database structure is functional, it may be restricting from adding more robust features.
- 4) Sortable table headers could be used throughout the system, such as the view_issues and edit_issue pages.
- 5) Allowing to add attachments to incident tickets
- 6) Adding email support would increase user activity and responsiveness. Anyone associated with the ticket could be emailed when a status is updated, a ticket is reassigned, and a user adds a comment. The email should include this update information.
- 7) Hashing and salted passwords for increased user security
- 8) Email confirmation once a user is registered
- 9) Allow changes to be made to incident tickets on the view issues pages, such as the status, who the ticket is assigned to, and a comment modal window that pops up.
- 10) An Incident Tracker Logo, for professionalism purposes
- 11) Additional status types, depending on what's required. Additionally, having the ability to create new statuses as the customer requires.
- 12) Implementing a hierarchy of states, meaning a certain status cannot be set until a previous status is set. For example, a ticket cannot be resolved until it has been set to Assigned or In Progress.