HEALTHCARE COALITION

Abigail Rehmet, Melody Hsu,
Sam Horrigan, Caroline Hoerrner, Elijah Eaton
Near Southwest Preparedness Alliance (NSPA)

- Virginia based healthcare coalition
- Serves ~1 million people
  - Hospitals
  - Long-term care facilities
  - Public health
  - Emergency management
- Coordinates partner response activities during disasters
  - COVID-19 pandemic
- Four staff members
- Executive Director: Robert Hawkins
- http://nspa1.org/
GOAL

- Project proposed by Chelsea Treboniak
- Create a web-based online tracking system for the NSPA
- Work with Chelsea to gather client and staff requirements for online ticketing system
- Minimum Viable Product in 7-8 weeks
**PPE Request Form – COVID19**

**I. REQUESTING AGENCY POINT OF CONTACT - Please Type all Answers**

1. Requestor’s Name (Please Print)  
2. Title  
3. Requestor’s Phone No.

4. Hospital Name - System (If requesting for entire hospital system, which facilities does this include?)

5. Requestor’s E-Mail Address

6. DELIVERY Address (include any special instructions, such as if there is a loading dock, or a 24/7 number needs to be called, etc).

7. 24/7 Contact Name and Phone number for delivery issues

**II. REQUEST SPECIFICS - Please Type all Answers**

7. Order (Please complete all fields)

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Kind</th>
<th>Brand</th>
<th>When will you run out of your current supply? (estimated)</th>
<th>Detailed Item Description: (Vital characteristics, brand, specs, experience, size, etc.)</th>
<th>Date Needed, pending availability</th>
</tr>
</thead>
</table>

8. If resources request has been fulfilled regionally, please explain how

9. □ The resource CANNOT be fulfilled locally

**Continuation of form: COVID-19 Specifics**

**PPE Request Form – COVID19**

**III. Additional COVID-19 Related Questions – ALL QUESTIONS ARE REQUIRED AND MUST BE FILLED OUT TO THE BEST OF YOUR ABILITY**

11. As of the request date, what is your current supply of each of the items, in individual units, you requested?

12. For each item you requested, how many do you use each day when caring for emergent and urgent patients?

13. Are the items requested being used for emergent or urgent care only?

14. What conservation measures have you put into place?

15. Have you cancelled elective surgeries and/or non-urgent outpatient appointments (if applicable)?
OUR APPROACH
TIMELINE

WEEK 1
- Discuss 2 different approaches

WEEKS 2-5
- Explore from scratch
- Explore pre-existing software

WEEK 6
- Presented findings and chose path forward
WEEK 1: SPLIT INTO GROUPS
<table>
<thead>
<tr>
<th>Redistribute?</th>
<th>Software</th>
<th>Language(s)</th>
<th>Link</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>doesn't say no</td>
<td>UVdesk</td>
<td>PHP, mySQL</td>
<td><a href="https://github.com/uvdesk/community-skeleton">https://github.com/uvdesk/community-skeleton</a></td>
<td>I like this one</td>
</tr>
<tr>
<td>Yes</td>
<td>osTicket</td>
<td>PHP, mySQL</td>
<td><a href="https://osticket.com/">https://osticket.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Zammad Help Desk</td>
<td>Ruby</td>
<td><a href="https://zammad.com/en">https://zammad.com/en</a></td>
<td>don't know if opensource</td>
</tr>
<tr>
<td>NO</td>
<td>eTicket</td>
<td>PHP</td>
<td><a href="https://eticketsupport.com/">https://eticketsupport.com/</a></td>
<td>illegal??</td>
</tr>
<tr>
<td>doesn't say no</td>
<td>Request Tracker</td>
<td>Perl, SQL</td>
<td><a href="https://bestpractical.com/download-page">https://bestpractical.com/download-page</a></td>
<td></td>
</tr>
<tr>
<td>Maybe</td>
<td>GLPI</td>
<td>PHP</td>
<td><a href="https://glpi-project.org/downloads/">https://glpi-project.org/downloads/</a></td>
<td></td>
</tr>
</tbody>
</table>
WEEK 2: GATHERED REQUIREMENTS
TICKET REQUESTER FUNCTIONALITY

- Open a ticket & submit
- Check ticket status
- Request ticket updates
- Avoid login feature
ADMIN (NSPA STAFF) FUNCTIONALITY

All staff:
- Login
- View all tickets
- Assign priority
- Communicate to client
- Delete/close tickets
- Assign tickets to staff

Director capabilities:
- Escalate ticket
WEEK 3: EXPLORED OSTICKET
**STAFF FUNCTIONS**

- Login
- View opened/closed tickets
- Assign priority
- Communicate to client
- Delete/close tickets
- Assign tickets
- Escalate ticket

**CLIENT FUNCTIONS**

- Open a ticket & submit
- Check ticket status
Near Southwest Preparedness Alliance

Dedicated to enhancing regional preparedness and response to disaster.

In order to streamline support requests and better serve you, we utilize a support ticket system. Every support request is assigned a unique ticket number which you can use to track the progress and responses online. For your reference we provide complete archives and history of all your support requests. A valid email address is required to submit a ticket.
Open a New Ticket

Please fill in the form below to open a new ticket.

Requesting agency point of contact

Please type all answers

**Requestor's Name** *

**Title** *

**Requestor's Phone Number** *

**Hospital Name** - System (if requesting for entire hospital system, which facilities does this include?)

**Requestor's Email Address** *

**DELIVERY Address** (include any special instructions, such as if there is a loading dock, or a 24/7 number needs to be called, etc.)

24/7 Contact Name and Phone number for delivery issues

**Help Topic**

**General Inquiry**

**Request specifics**

Please type all answers:

**Order**

**Quantity** *

**Kind** *

**Brand** *

When will you run out of your current supply? (estimated)

**Detailed item description** (vital characteristics, brand, specs, expense, size, etc.)

**Date needed, pending availability**

If resources request has been fulfilled regionally, please explain how

The resource CANNOT be fulfilled locally

The resource CANNOT be fulfilled regionally

As of the request date, what is your current supply of each of the items, in individual units, you requested?

For each item you requested, how many do you use each day when caring for emergent and urgent patients?

Are the items requested being used for emergent or urgent care only?

What conservation measures have you put into place?

Have you cancelled elective surgeries and/or non-emergent outpatient appointments (if applicable)?
Hi Melody,

An access link request for ticket #799067 has been submitted on your behalf for the helpdesk at https://120.220.221.23/osTicket.

Follow the link below to check the status of the ticket #799067.

https://120.220.221.23/osTicket/view.php?auth=01e2aaa0aaa0aaaE4U0nz58%3EB%3A%3D%3D

If you did not make the request, please delete and disregard this email. Your account is still secure and no one has been given access to the ticket. Someone could have mistakenly entered your email address.

...   
Near Southwest Preparedness Alliance

Reply   Forward
What ticket requester receives:

Hi Melody,

An access link request for ticket #799067 has been submitted on your behalf for the Helpdesk at https://128.220.221.23/osTicket/view.php?auth=Oa2aAAAAAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaAaA
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<th>Last Updated</th>
<th>Subject</th>
<th>From</th>
<th>Priority</th>
<th>Assigned To</th>
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</thead>
<tbody>
<tr>
<td>530977</td>
<td>2/22/21 3:38 PM</td>
<td>hi</td>
<td>test</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>762095</td>
<td>3/4/21 5:01 AM</td>
<td>afaffen</td>
<td>aff</td>
<td>Normal</td>
<td></td>
</tr>
<tr>
<td>874136</td>
<td>3/4/21 6:24 PM</td>
<td>afaffen</td>
<td>aff</td>
<td>Normal</td>
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<tr>
<td>799067</td>
<td>2/2/21 5:44 AM</td>
<td>fasgarh</td>
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<td>Normal</td>
<td></td>
</tr>
<tr>
<td>325636</td>
<td>2/2/21 11:16 AM</td>
<td>asfaffs</td>
<td>aff</td>
<td>Normal</td>
<td></td>
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<tr>
<td>798824</td>
<td>2/2/21 10:59 AM</td>
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<td>aff</td>
<td>Normal</td>
<td></td>
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<tr>
<td>408423</td>
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<td>sd</td>
<td>Melody</td>
<td>Normal</td>
<td></td>
</tr>
<tr>
<td>532627</td>
<td>2/2/21 4:49 PM</td>
<td>sdigenfssdfk</td>
<td>aff</td>
<td>Normal</td>
<td></td>
</tr>
<tr>
<td>186367</td>
<td>2/2/21 3:07 AM</td>
<td>Abby's ticket</td>
<td>aff</td>
<td>Normal</td>
<td></td>
</tr>
<tr>
<td>569019</td>
<td>2/1/21 1:07 PM</td>
<td>this is a test?</td>
<td>aff</td>
<td>Normal</td>
<td></td>
</tr>
<tr>
<td>876187</td>
<td>2/1/21 1:16 PM</td>
<td>osTicket installed!</td>
<td>aff</td>
<td>Normal</td>
<td></td>
</tr>
<tr>
<td>4085983</td>
<td>2/2/21 4:30 PM</td>
<td>asfafft</td>
<td>aff</td>
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<td></td>
</tr>
<tr>
<td>905470</td>
<td>2/2/21 6:18 PM</td>
<td>foo1</td>
<td>aff</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>938474</td>
<td>2/2/21 2:55 PM</td>
<td>subject</td>
<td>aff</td>
<td>Low</td>
<td></td>
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<tr>
<td>4503890</td>
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<td>hello</td>
<td>aff</td>
<td>Low</td>
<td>NSPA Support</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>aff</td>
<td>Low</td>
<td>NSPA Support</td>
</tr>
</tbody>
</table>
3: BUILT SCRATCH ENVIRONMENT
RELATIONAL MODEL
How It Works

Model
- Info
- Ticket
- Specifics

Constructors
Getters
Setters

Database Access Obj
- Add( Request )
- ListAll()
- Delete( Request )
- Update( Request )

Server.java & Front End
- Establishes database connection
- Redirects to pages
- Provides data to our HTML
ABLE TO MEET CLIENT AND STAFF FUNCTIONALITIES
ABLE TO MEET CLIENT AND STAFF FUNCTIONALITIES
WEEK 4: SET UP OSTICKET SERVER & WORK ON WEBSITE FROM SCRATCH
hostgator → http://128.220.221.23/osTicket

- Download Dependencies
  - PHP 5.6
  - MariaDB
  - PHP Manager
- Download and Configure osTicket
WEEK 5: COMPARED METHODS
OSTICKET

Pros
- Provides a more immediate product that fulfills what we need
- Is already implemented for us

Cons
- Less flexible
- Troubleshooting is problematic
- Longevity of the system is limited
- The log in function is difficult to remove
- Several preexisting PHPs
Pros

- Flexibility
- Not finished on week 1
- Valuable learning experiences

Cons

- Time consuming
- API/Library Sleuthing
  - SparkJava (server)
  - Sql2o, PostgreSQL (JDBC)
  - Velocity Template Engine (front end)
  - Bootstrap (refined front end)
  - jBCrypt (password hashing)
  - SendGrid (emails)
  - pdfcrowd? PDFbox? iText? (pdf's)
  - ... and more to come (probably)
WEEK 6: THE CHOICE...
Local → http://rain3.cnds.jhu.edu/nspa

- Download Dependencies
- Setup Database
- Configure Build.Gradle
- Compile Code
LIVE DEMO