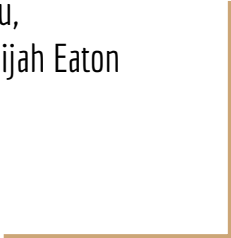# HEALTHCARE COALITION

Abigail Rehmet, Melody Hsu,
Sam Horrigan, Caroline Hoerrner, Elijah Eaton

ABOUT THE PROJECT

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

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)

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

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

9. ☐ The resource CANNOT be fulfilled locally	10. ☐ The resource CANNOT be fulfilled regionally

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
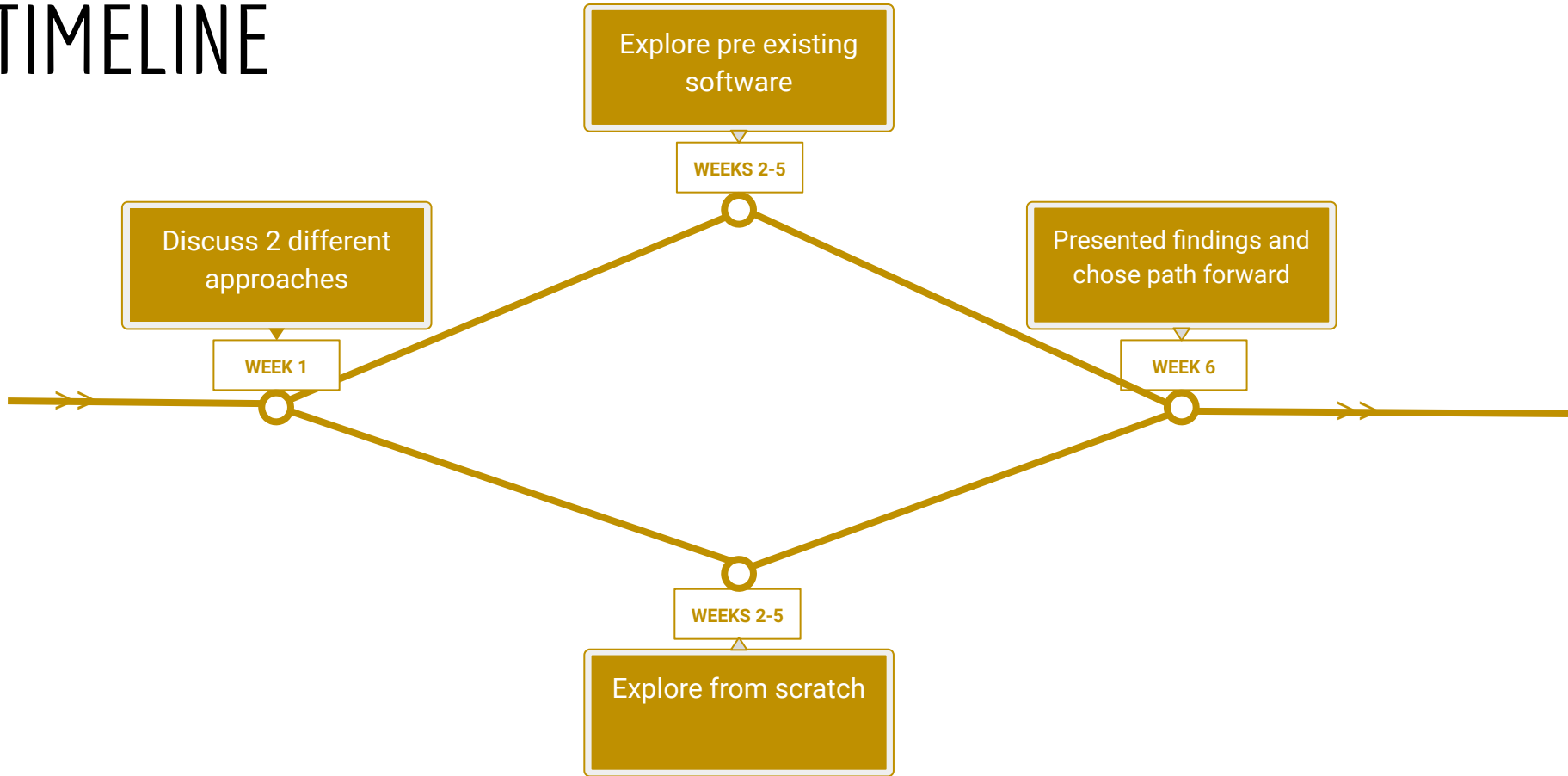
WEEK 1: SPLIT INTO GROUPS

osTicket | from scratch

- Abby
- Melody

- Caroline
- Elijah
- Sam

Redistribute?	Software	Language(s)	Link	Note
doesn't say no	UVdesk	PHP, mySQL	https://github.com/uvdesk/community-skeleton	I like this one
Yes	osTicket	PHP, mySQL	https://osticket.com/	
	Zammad Help Desk	Ruby	https://zammad.com/en	don't know if opensource
NO	eTicket	PHP	https://eticketsupport.com/	illegal???
doesn't say no	Request Tracker	Perl, SQL	https://bestpractical.com/download-page	
Maybe	GLPI	PHP	https://glpi-project.org/downloads/	

WEEK 2: GATHERED REQUIREMENTS

TICKET REQUESTER FUNCTIONALITY

- ● Open a ticket & submit

- ● Check ticket status

- ● Request ticket updates

- ● Avoid login feature

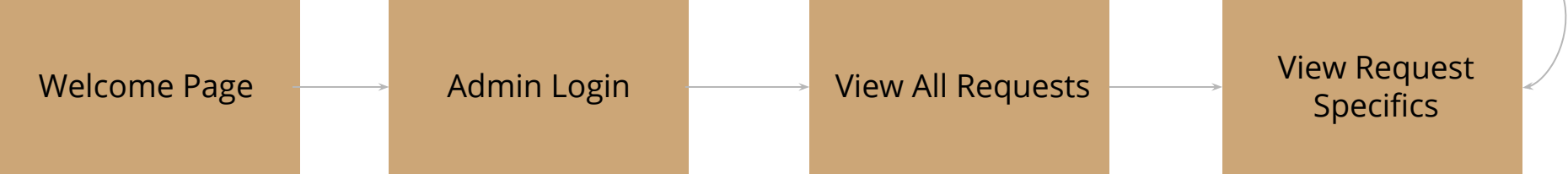# ADMIN (NSPA STAFF) FUNCTIONALITY

All staff:

- Login

- View all tickets

- Assign priority

- Communicate to client

- Delete/close tickets

- Assign tickets to staff

Director capabilities:

- Escalate ticket

FLOW DIAGRAM

WEEK 3: EXPLORED OSTICKET

STAFF FUNCTIONS

CLIENT FUNCTIONS

- **Login**

- **View opened/closed tickets**

- **Assign priority**

- **Communicate to client**

- **Delete/close tickets**

- **Assign tickets**

- **Escalate ticket**

- **Open a ticket & submit**

- **Check ticket status**

Open a New Ticket

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.

NSPA

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

[   ] Ext: [   ]

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

Kind

[   ]

Brand

[   ]

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

[   ] 📅 (EST)

Detailed item description (vital characteristics, brand, specs, experience, 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-urgent outpatient appointments (if applicable)?

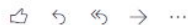[   ]

What ticket requester receives:

Ticket [#799067] Access Link

DSN NSPA <dsn.nspa@gmail.com>
Thu 2/25/2021 2:55 PM
To: Melody Hsu

External Email - Use Caution

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.

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

https://128.220.221.23/osTicket/view.php?auth=o1xa2aaaaaqaaaaaEiU0nziSb%2FB%2B3A%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:

What admin receives:

Ticket [#799067] Access Link

DN DSN NSPA <dsn.nspa@gmail.com>
Thu 2/25/2021 2:55 PM
To: Melody Hsu

External Email - Use Caution

Hi Melody,

An access link request for ticket #799067 has been submitted on your behalf for the helpdesk at https://128.2

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

https://128.220.221.23/osTicket/view.php?auth=o1xa2aaaaaqaaaaaEiU0nziSb%2FB%2B3A%3D%3D

If you **did not** make the request, please delete and disregard this email. Your account is still secure and no on
address.

--
Near Southwest Preparedness Alliance

Reply | Forward

New Ticket Alert

DN DSN NSPA <dsn.nspa@gmail.com>
To Abigail Rehmet

↩ Reply   ↩ Reply All   → Forward   •••

Thu 3/4/2021 6:27 PM

External Email - Use Caution

Hi Admin,

New ticket #762095 created

From: Melody
Department: Support

sdaerhae

To view or respond to the ticket, please login to the support ticket system
Your friendly Customer Support System

powered by osTicket

Authentication Required

Email or Username

Password

→) Log In

Welcome, **NSPA**. | Admin Panel | Profile | Log Out

| Dashboard | Users | Tasks | **Tickets** | Knowledgebase |

🗐 Open ▾   🗐 My Tickets ▾   🗐 Closed ▾   🗐 Search ▾   📄 New Ticket

[_____ 🔍] [advanced] ⓘ   ↓Ξ Sort ▾

⟳ **Open** ⚙   [🏴 ▾] [👤 ▾] [ⴵ] [🔗] [⮕] [🗑]

	Ticket ⬍	Last Updated ⬍	Subject ⬍		From ⬍	Priority ⬍	Assigned To ⬍
☐	🗐 **530977**	2/22/21 3:38 PM	📄 hi	💬 2	test	High	
☐	🗐 **762095**	3/4/21 6:28 PM	afaasfa	💬 3	Melody	Normal	NSPA Support
☐	🗐 **874136**	3/4/21 6:24 PM	af		aafdfawg	Normal	
☐	🗐 **799067**	2/25/21 5:44 PM	📄 fasgarh	💬 2	Melody	Normal	NSPA Support
☐	🗐 **323638**	2/23/21 11:16 AM	📄 asfaf		sdgwe	Normal	
☐	🗐 **798824**	2/23/21 10:59 AM	📄 asfa		a	Normal	
☐	🗐 **408423**	2/22/21 4:50 PM	📄 sd		Melody	Normal	
☐	🗐 **632627**	2/22/21 4:49 PM	📄 sdlfgjhesgkl	💬 2	Abby	Normal	NSPA Support
☐	🗐 **186367**	2/22/21 3:07 PM	📄 Abby's ticket	💬 2	Abby	Normal	NSPA Support
☐	🗐 **969019**	2/18/21 1:07 PM	📄 this is a test 📎	💬 4	Abby	Normal	NSPA Support
☐	🗐 **876157**	2/14/21 1:16 PM	📄 osTicket Installed!		osTicket Support	Normal	NSPA Support
☐	🗐 **409593**	2/28/21 4:30 PM	📄 lalalal testt	💬 3	Abby	Low	NSPA Support
☐	🗐 **905470**	2/25/21 6:18 PM	📄 foo1		Abby	Low	
☐	🗐 **938474**	2/25/21 2:55 PM	📄 subject	💬 2	Abby	Low	NSPA Support
☐	🗐 **493380**	2/18/21 1:05 PM	📄 hello		Test	Low	

Select: All None Toggle

Page: **[1]** Export ⓘ   Showing 1 - 15 of about 15

↻ Ticket #493380

Ticket Thread (1) | Tasks

Test posted 2/18/21 1:05 PM

hello

✎ Created by 👤 Test 2/18/21 1:05 PM

🕐 Flagged as overdue by the system 2/22/21 3:04 PM

➡ 👤 NSPA Support transferred this to **Maintenance** 2/22/21 4:15 PM

⚠ 📄 Marked overdue!

Post Reply | Post Internal Note

From:	DSN NSPA<dsn.nspa@gmail.com> ▾
Recipients:	"Test" <test@gmail.com>
	▸ Collaborators
Reply To:	All Active Recipients ▾ ⓘ
Response:	Select a canned response ▾

`<>` ¶ **A** Aa **B** *I* U S̶ ☰ 🖼 ▶ ▦ 🔗 — ⤢ 💾 🗑

hellohellohellohello

Hey User,

From Ushello

can of tuna

Hey User,

From Us

all changes saved

⊕ Drop files here or choose them

3: BUILT SCRATCH ENVIRONMENT

RELATIONAL MODEL

How It Works
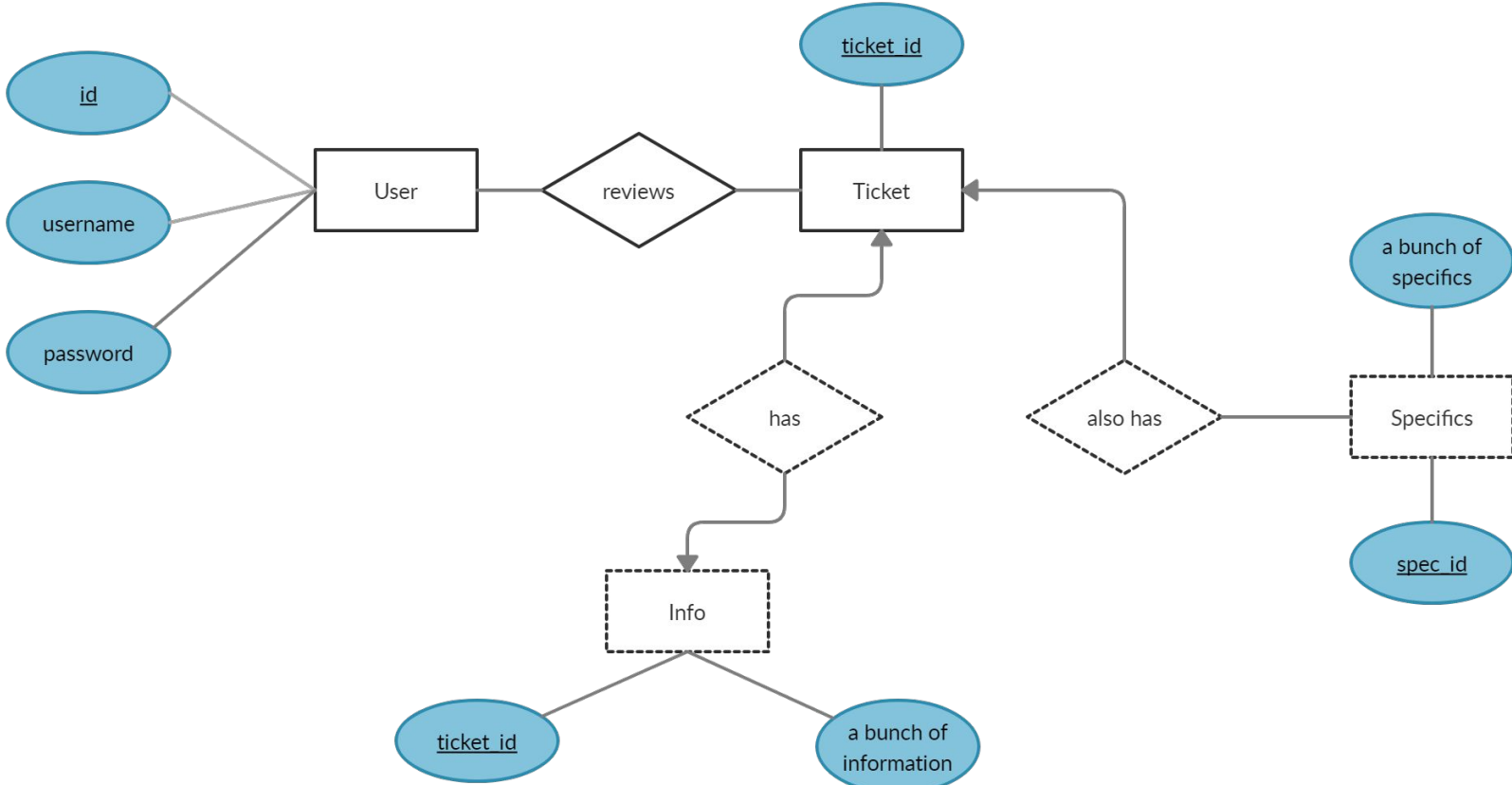
Model	Database Access Obj	Server.java & Front End
Model	**Database Access Obj**	**Server.java & Front End**
• Info • Ticket • Specifics Constructors Getters Setters	Add(Request) ListAll() Delete(Request) Update(Request)	- Establishes database connection - Redirects to pages - Provides data to our HTML

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

SCRATCH

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

http://rain3.cnds.jhu.edu/nspa

LIVE DEMO