



ANIMETRIX

SMAD/CIS Project | March 5, 2020 | Sprint 1 - Client Report
Presented by Clarity Consulting

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MEET THE TEAM



Mund Abdulla
Cloud Infrastructure
Engineer



Andrew Branson
Front End Developer



Tyler Chronister
Systems Analyst



Andrew Taylor
Infrastructure
Architect



Aaron Morgan
Project Manager



Ivan Zhang
Back End Developer



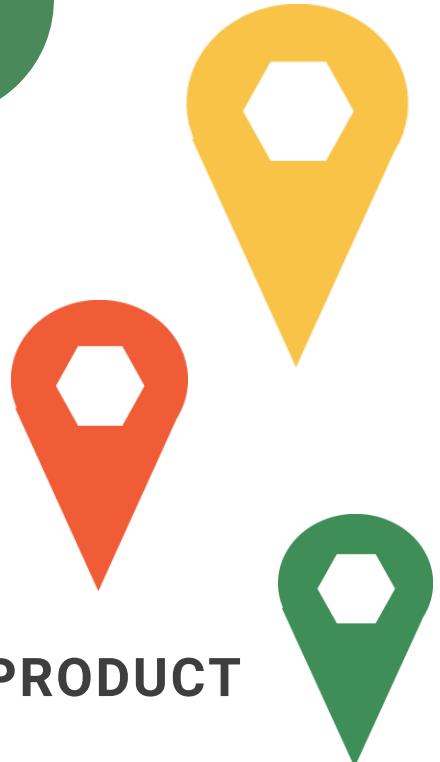
Stephanie Whitehouse
UX/UI & Visual Designer

CLARITY 
CONSULTING

CLIENT GOALS

DATA INSIGHT & SHARING

- Check security
- Data validation
- Review/update/edit/delete data
- Download/export data
- Add/manage delete teams
- Add/delete project
- Share data securely - user discretion



PURCHASE & REGISTER/ACTIVATE PRODUCT

- Collect info
- Generate key
- Connect device to project

NEW SYSTEM IDENTITY / BRANDING

A sleek and clean interface with appropriate tone for scientific endeavors that spark curiosity and foster an engaging experience across a variety of user levels

LOG IN/CREATE AN ACCOUNT FEATURE

Animetrix will allow users to log into the system to enable them to securely do the following:

- manage devices
- manage teams
- manage projects
- manage/customize account

ADMIN FUNCTIONALITY

- Add/manage delete teams
- Add/delete project
- Manage third party ownership and account distribution

DESIGN REQUIREMENTS

LOG IN/CREATE AN ACCOUNT FEATURE

Animetrix will allow users to log into the system to enable them to do the following:

- Purchase and register units
- Create a profile within the system
- View, interact with, and keep track of their data
- Share data securely
- View project information
- View owner information
- Contribute to a forum
- View and interact with the data of others

PURCHASE & REGISTER DEVICES

- Animetrix should allow users to **easily purchase any quantity of units and register them** within the system, as well as allow them to add additional units to their account via the unit key/activation code.

ESTABLISH ROLES & GRANT PERMISSIONS TO INVOLVED PARTICIPANTS

- This system should be able to offer users (specifically project owners) an easy way to **onboard other users onto projects and teams, as well as grant other users access to data in a way that is intentional and secure.**
- Project owners should be able to have discretion over what parts of the data they wish to share.
- Administrator roles must have the ability to view and analyze users, facilitate connections, and manage their subsequent ecosystems, and have access to data as necessary.

DESIGN REQUIREMENTS

(CONT.)

TEAM MANAGEMENT: START & SHARE PROJECTS

- The system needs to allow administrators to create Projects and Teams, and grant access to their data, whether that is for students or other researchers. Users and Admins should be able to grant a project a name, associate the project with a unit, and assign users to projects.

ENTER/EDIT & VIEW DATA

- The Animetrix system should allow users with applicable permissions to go behind the scenes and enter, update, edit, or delete data when necessary (i.e. when excess data is collected of a single specimen or other issue with the data arises and needs to be resolved)
- Potential for AI/Machine Learning to assist with data entry and
- The system should also be able to **offer a variety of ways to view the data** (ex. in lists, tables, visual elements).

COMMUNITY FORUM

- The Animetrix forum should provide a place where users can **interact & engage** with each other and discuss findings and ask questions

DESIGN QUESTIONS



How might we **improve** and **streamline** the experience of researchers, students, & instructors who wish to:

- purchase devices
- register devices
- manage teams & projects
- collect data
- submit data
- view data
- approve/edit/remove data
- view photos/videos
- modify devices



...all while ensuring that **users feel secure** when they **share data**?

How might we foster **insightful & meaningful discourse** within a **global online community**?

OUR VISION



DISCOVER. LEARN. ENGAGE. EXPLORE.

"it's all about the data."

The creation of a new and improved animal monitoring device that was safer for animals was an exciting first step in getting this research off the ground. The next step? Taking a closer look at the systems and processes that would be working with these improved devices, and **creating a better, more user friendly, streamlined experience for all involved.**

Animetrix is a system that enables researchers, educators, students, and even hobbyists to purchase and use these improved devices, as well as **seamlessly view, edit, share, and collaborate** on projects and teams with other device owners or community members.

"a social network of mammologists"

Our goal is to create a **secure, accessible data -driven environment** and community that encourages **discovery**, promotes **learning**, and engages researchers from all over the world. Our team, with the Animetrix system, seeks to **empower the target users** of this system.

ANIMETRIX BRANDING/IDENTITY

LOGO VARIATIONS



COLORS



#1A181B



#3E3E3E



#4A8959



#DDDDDD



#F2F1F1



#E66641



#F2C04D

TYPOGRAPHY

Questrial -
Decorative
Aa Bb Cc Dd

Roboto
Headers, bold
Body paragraphs

APPROACH / METHODOLOGY

We conducted our research primarily through meeting with the client to understand their goals and aspirations for this site.



As the product gains traction and units are sold, we expect our target audience to be comprised of current researchers (such as doctoral candidates conducting research), teachers hoping to integrate the system in their classroom activities, and students themselves who are expected to view and interact with the data in a learning environment.



We decided to dedicate our research and exploration to that demographic. Although we did narrow our demographic, we became familiar with potential secondary and tertiary actors and users and hypothesized what these target users would want within the site system. We look forward to testing with more diverse users once we have the design functions that are most critical to the target audience in place.



SUMMARY & TAKEAWAYS

After speaking with the clients and prospective users of this system, we believe that this system should be focused on the secure storage and accessibility of data, and provide easy, intuitive ways for users to interact with and share that data.

We believe that this system needs to be easy to use, interactive, and multifaceted to accommodate a wide variety of skill sets and abilities, as well as be compatible with mobile systems to allow use in field work. We created user personas to help reflect these findings and explore the goals and frustrations of the projected target audience.

RESEARCH QUESTIONS



- How do you enter data currently? How is it stored?
- What are you using currently to keep track of data?
- What are your biggest frustrations with your current system?
- How often do you anticipate interacting with the system?
- Is there potential for this system to be used in the field (i.e. on an iPad or other mobile device used for field work?)
- How often do you collect data (daily, weekly, monthly)
- What operating system do you use?
- What features would you like to see in this system?
- How does each user have autonomy to contribute and share data, all while maintaining some level of privacy among users and informationHow best do you like data visualized (chart, list, table, graphs, etc.)?
- How involved will the admins be in the maintenance of this system, and will they be required to understand the data collected?



USER PERSONAS



AGE: 29

LOCATION: Harrisonburg, VA

EDUCATION: B.S. in Environmental Studies, Southern New Hampshire University; pursuing PhD at Montana State University

SKILLS:

- Animal Research
- Data Collection
- Some database experience
- Excel Spreadsheet Wizard

HOBBIES: Skiing, biking, reading, birdwatching, her research

PRIMARY PERSONA

LELA GOSE

Active Researcher, Doctoral Student

LELA'S USER STORY

Lela is a doctoral candidate whose research specializes in *Pachyuromys duprasi* conservation (study and conservation of fat-tailed gerbils). She is working on collecting more accurate data for her thesis, which she is keeping under wraps until she can collect more data that supports her hypothesis.

FRUSTRATIONS: Can't share her data easily when she wants to, and has concerns about privacy and her data collection. Is currently frustrated with the time it takes to validate data.

GOALS: Wants a secure space to keep all of her data as well as a community to eventually share her findings with and network with.

"I have spent many late nights and cups of coffee working tirelessly on this research for the past year--I can't wait to share my findings with the world. Until then, however, I'm keeping my progress under wraps and my studies close to my chest."

USER PERSONAS



AGE: 43

LOCATION: Staunton, VA

EDUCATION:

Masters in Biology and
Masters in Education from
James Madison University

SKILLS:

- Teaching
- Technology in the classroom
- Powerpoint & Excel

HOBBIES: Flyfishing, playing fetch with his dog, Mike, and the occasional epic ping pong battle with his 2 sons

SECONDARY PERSONA **PROFESSOR DILLARD**

JMU Adjunct Bio Professor and HS Teacher

PROF DILLARD'S USER STORY

Professor Dillard has a passion for microbiology, but an even bigger passion for teaching. He balances his time between a college lecture hall and a busy high school science lab. He is looking for ways to engage his students both on campus and off, and is very fond of integrating technology into his classroom if it means a hands-on learning experience for his students.

FRUSTRATIONS: Doesn't like dealing with clunky databases or hard to understand interfaces. Is a strong champion of both student and faculty privacy-- he wants to include his students but not at the expense of collecting too much personal information

GOALS: Wants to create an engaging environment in his classrooms and allow students to take on the role of "researcher" to give them a more immersive feel or research environments and to help them get excited about the natural world around them.

"I fell in love with animal research. I wish there were a way for more people to understand why it's important, and to be engaged in the research process in a way that is easy, fun, and interactive."

USER PERSONAS



SECONDARY PERSONA **KIM WHETHERS**

University Systems Admin - STEM Department

KIM'S USER STORY

Kim has recently been hired part time as the resident Systems Admin at Penn State University. She handles the department orders as well as

FRUSTRATIONS: Kim is only part time and doesn't get paid much for this gig. She is only able to complete Admin duties 3 days out of the week.

GOALS: Wants a user friendly interface that makes it easy for her to go in and address problems within her team. She wishes she had some assistance in some of her regular tasks..

"I'm the one they call when something is missing, broken... I love problem solving, troubleshooting, and figuring things out on the job. "

AGE: 32

LOCATION: State College, PA

EDUCATION:

BBA in Computer Information Systems from James Madison University

SKILLS:

- Client Communication
- C#
- Java
- Tableau
- PHP

HOBBIES: Traveling, wine tasting, kayaking, and running an instagram account dedicated to her glass blowing crafting endeavors

USER PERSONAS



AGE: 18

LOCATION: Fredericksburg, VA

EDUCATION:
Senior in High School

SKILLS:
- Internet-based research
- Social media
- Basic HTML/CSS and
JavaScript knowledge
- Scientific research writing

HOBBIES: Computer gaming,
marching band, ultimate
frisbee, camping,
photography, Eagle Scouts

TERTIARY PERSONA **AMIR HODGE**

High School Biology Student

AMIR'S USER STORY

Amir is a high school senior who is learning about ecosystems and the environmental impacts his local community has on the ecosystems in his neighborhood area. His class is embarking on a project where he must evaluate trends of small animals over the course of a school year as the school is doing construction on its grounds so he can compare to the previous year's data. He's been invited by his teacher to join in a database where his job is to look at the frequency of a certain species.

FRUSTRATIONS: Has a hard time staying engaged in class and wishes his research projects could be more hands on

GOALS: Wants to work effectively with the teacher to learn about populations of species to affect positive change within his community.

"I love getting to go outside during class, it's so much more fun than doing boring worksheets. I might not be the best student in biology, but I want to feel like I'm doing something worthwhile and interesting."

USER PERSONAS



AGE: 34

LOCATION: Great Falls, VA

EDUCATION: B.S.
Environmental Science at
Virginia Tech

SKILLS:

- Survival Skills
- Park Report Writing
- Animal Rescue
- Guided Tours
- Park Conservation
- Animal Research

HOBBIES: Hiking, camping,
rock climbing, watching The
Office, reading, fishing, tarot
card reading

TERTIARY PERSONA **BETH MCLEAN**

National Parks Ranger & Resident Researcher

BETH'S USER STORY

Beth is a Park Ranger within the Algonkian Regional Parks and Great Falls Parks. She is responsible for keeping tabs on and keeping record of the wildlife in the area. She

FRUSTRATIONS: Outside very often and not always with the best cell signal or internet access. Has a hard time viewing a clunky database on a mobile device

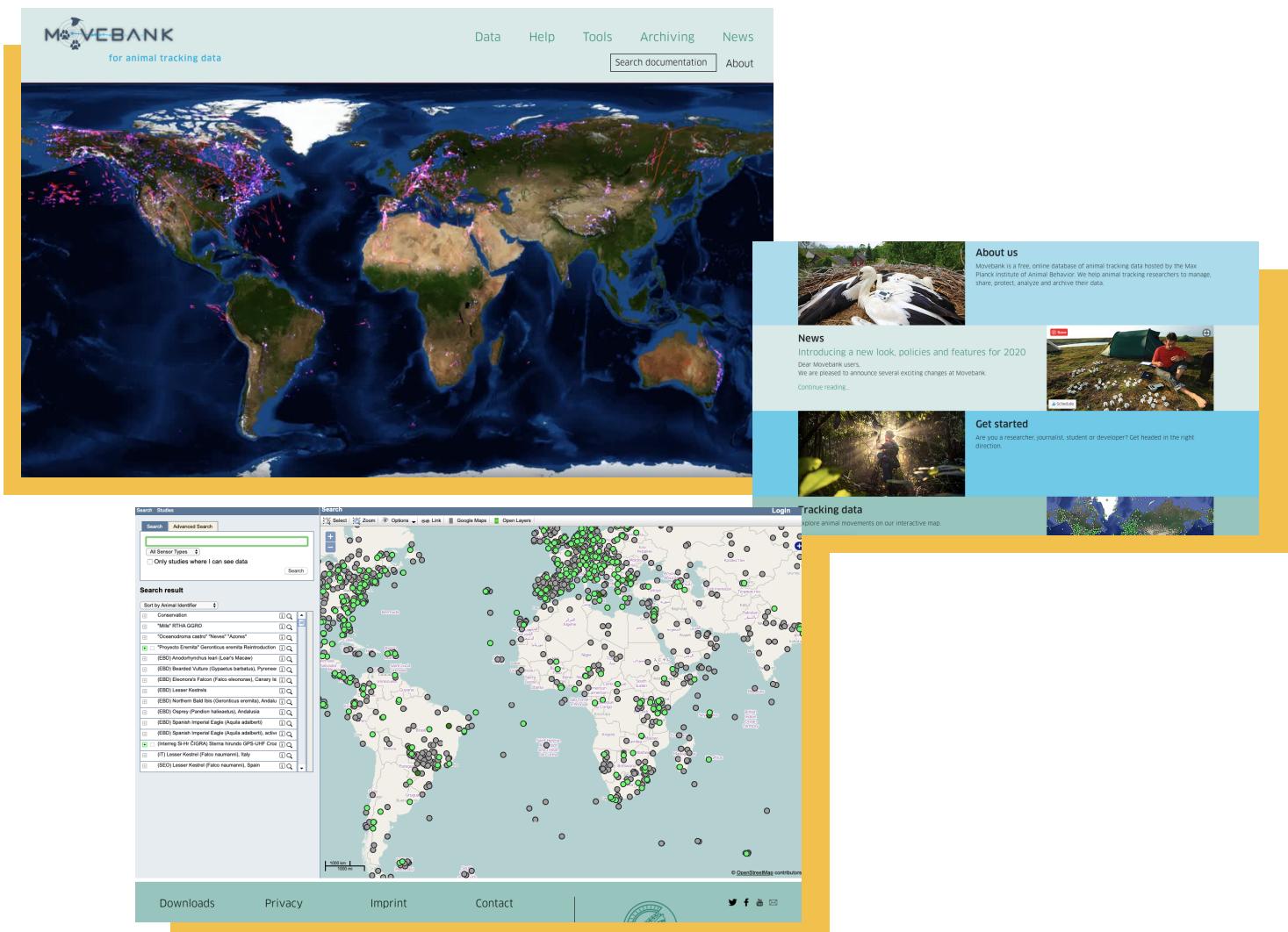
GOALS: Wants to be able to collect accurate, meaningful data to share in her park reports as well as submit to larger associations with environmental concerns.

"Being outdoors is the best part of showing up to work every day. It makes me appreciate the efforts people are taking to preserve the world around us. I'm sure if people knew just how many diverse species live around here, they would be more invested and more conscious of their human footprint."

DESIGN INSPIRATION

MOVEBANK FOR ANIMAL TRACKING DATA

The Movebank website was a large source of inspiration for us. It has a very engaging landing page with an interactive map that we plan to replicate, with the ability to sort data points on the map and, upon hovering over data points, show a sneak peek of some of the data. We want the user to feel instantly curious when they land on the Animetrix site, and compel them to look around and ultimately get them curious about purchasing their own device.



DESIGN INSPIRATION

OCEARCH

A "data-centric organization built to help scientists collect previously unattainable data in the ocean", this site caught our attention as another really useful model for what we wanted to build. Their emphasis on informative and attractive "ABOUT" information as well as an interactive, larger-than-life map on the home page that offers "live" looks at certain data points encourages curiosity and exploration through the rest of the site. Osearch's interactivity and video samples are very intriguing and engaging. These are elements we hope to incorporate to our site as well.

The OCEARCH website features a prominent map of the North Atlantic and Gulf of Mexico, showing the locations of various sharks tracked by the organization. A sidebar on the right displays recent pings from sharks like Pico, Emily, and Alara. Below the map, a timeline highlights key milestones: the first expedition to Guadalupe Island in 2007, followed by 2008, 2009, 2010, and 2011. A large ship, the M/V OCEARCH, is shown docked at Guadalupe Island.

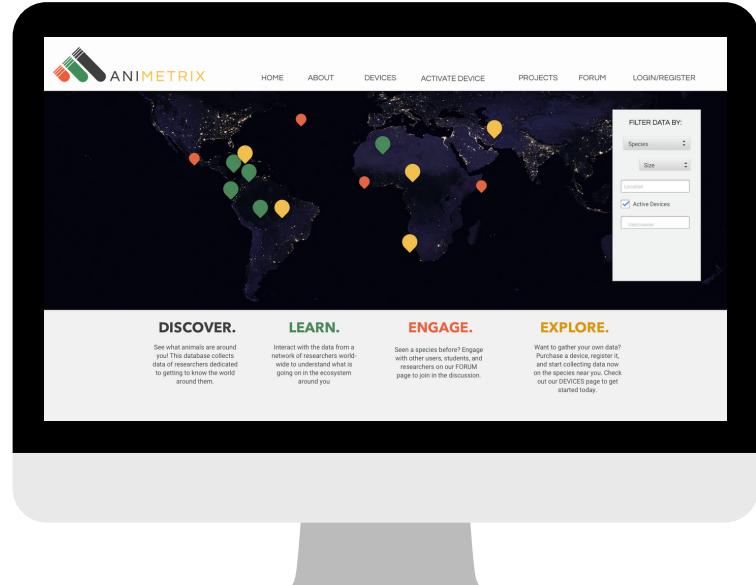
WHAT WE DO

SCIENCE
Research expeditions are conducted aboard the M/V OCEARCH, which serves as an at sea laboratory. The M/V OCEARCH offers a 75,000 lb. capacity hydraulic platform designed to safely lift mature marine animals out of the ocean for access by a multi-disciplined research team to gather up to 12+ samples in 15 minutes.

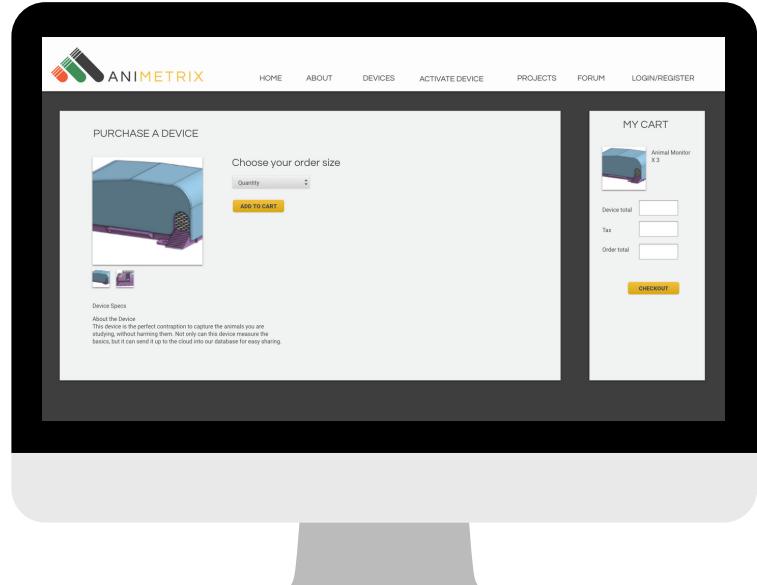
EDUCATION
The OCEARCH STEM Curriculum enables students to learn STEM skills while following the real-time data on the movements of their favorite sharks. The free curriculum, available for grades K-8, is based on the OCEARCH Tracker and the Next Generation Science Standards (NGSS).

MEDIA
OCEARCH operates in the "Now", with our team of multimedia storytellers, we are bringing the world along in real time as we chase scientific data. With the help of the OCEARCH Tracker and social media platforms, we are leading the conversation on shark science in the digital space.

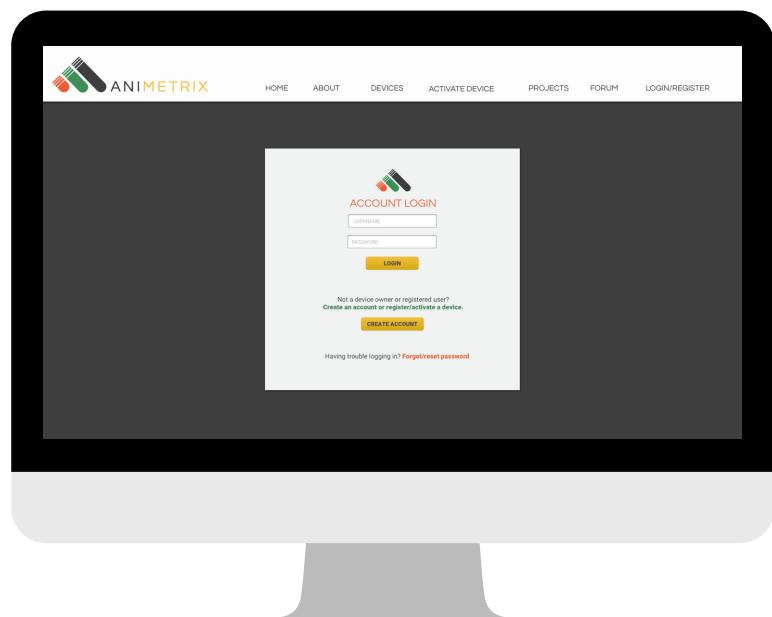
SYSTEM MOCKUPS



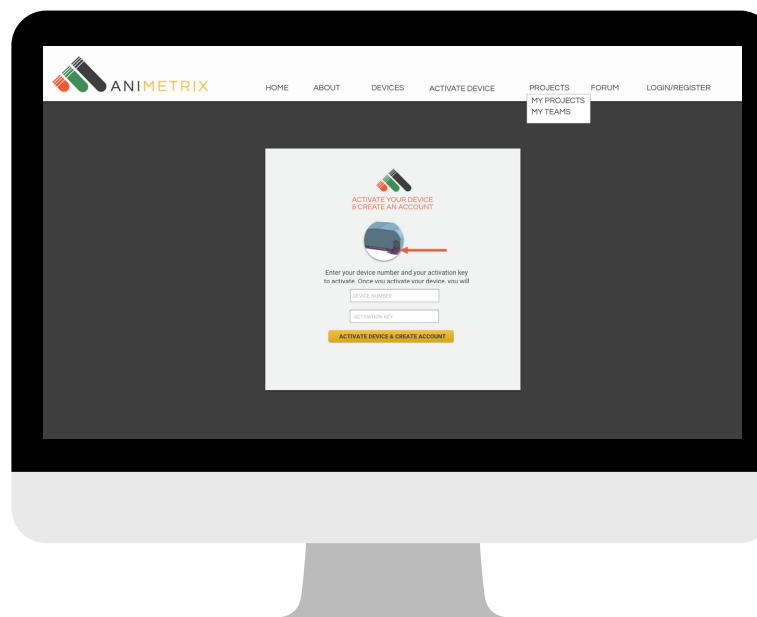
Landing Page / Home



Purchase a Device



Login/Register



Register a Device

SYSTEM MOCKUPS

This screenshot shows the 'MY PROJECTS' and 'MY TEAMS' sections of the dashboard. Under 'MY PROJECTS', there is a thumbnail for 'PROJECT SHREW' and a '+ ADD NEW...' button. Under 'MY TEAMS', there are icons for 'JMSHREW' and 'SPOTSWOOD HS BIOLOGY', each with a '+ ADD NEW...' button. A 'ASSIGN TEAM MEMBERS' button is located at the bottom.

User Dashboard - Project Management

This screenshot shows the 'TEAM MEMBERS' section with five user profiles: Dr. G, Dr. M, User, User, and User. A modal window is open for Dr. G, showing options to 'Assign to...', 'Delete member', and 'See details...'. Below this is a 'DATA PREVIEW' section for 'Devices' with a table:

Device ID	Nickname	Comm Status	Media	Location
1	device_1_bryan	1	video	38.52477 -78.999561
2	device_2_bryan	1	video	38.52451 -78.127201
3	device_3_bryan	1	video	38.52451 -78.109851

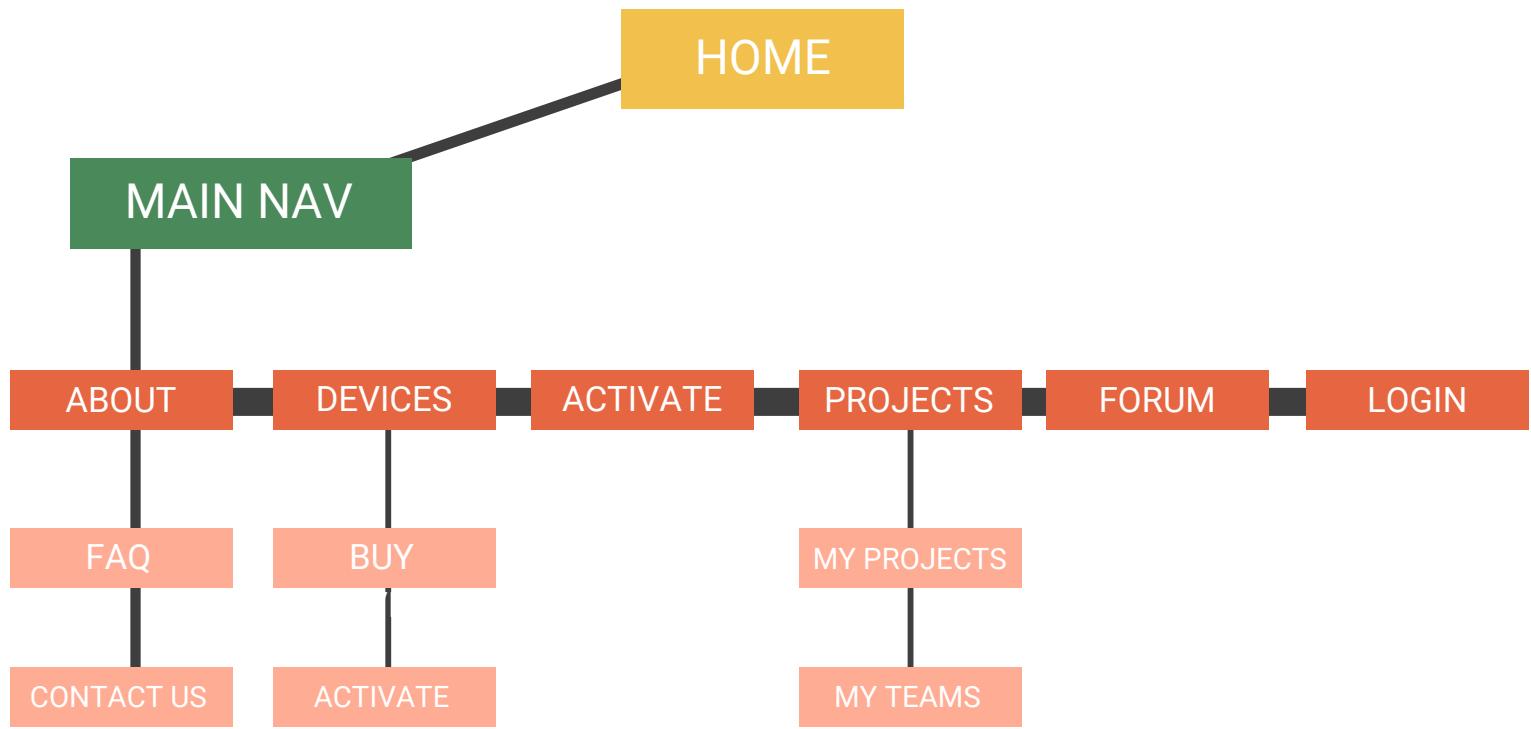
On the right side, there are cards for 'ANIMAL MONITOR 1' and 'BIO LAB MONITOR' with detailed device information.

User Dashboard - Team Management

This screenshot shows the 'MY ACCOUNT DETAILS' section. It includes fields for 'NAME' (with an 'Affiliation (if applicable)' dropdown), 'Degree(s)' (with a dropdown menu), 'Email Address' (with 'Valid Email' and 'Change Password' buttons), and checkboxes for 'Show my email on my profile' and 'Show my email on my data'. A note at the bottom states: 'Data from this screen can be part of your data or study archive project (optional)'.

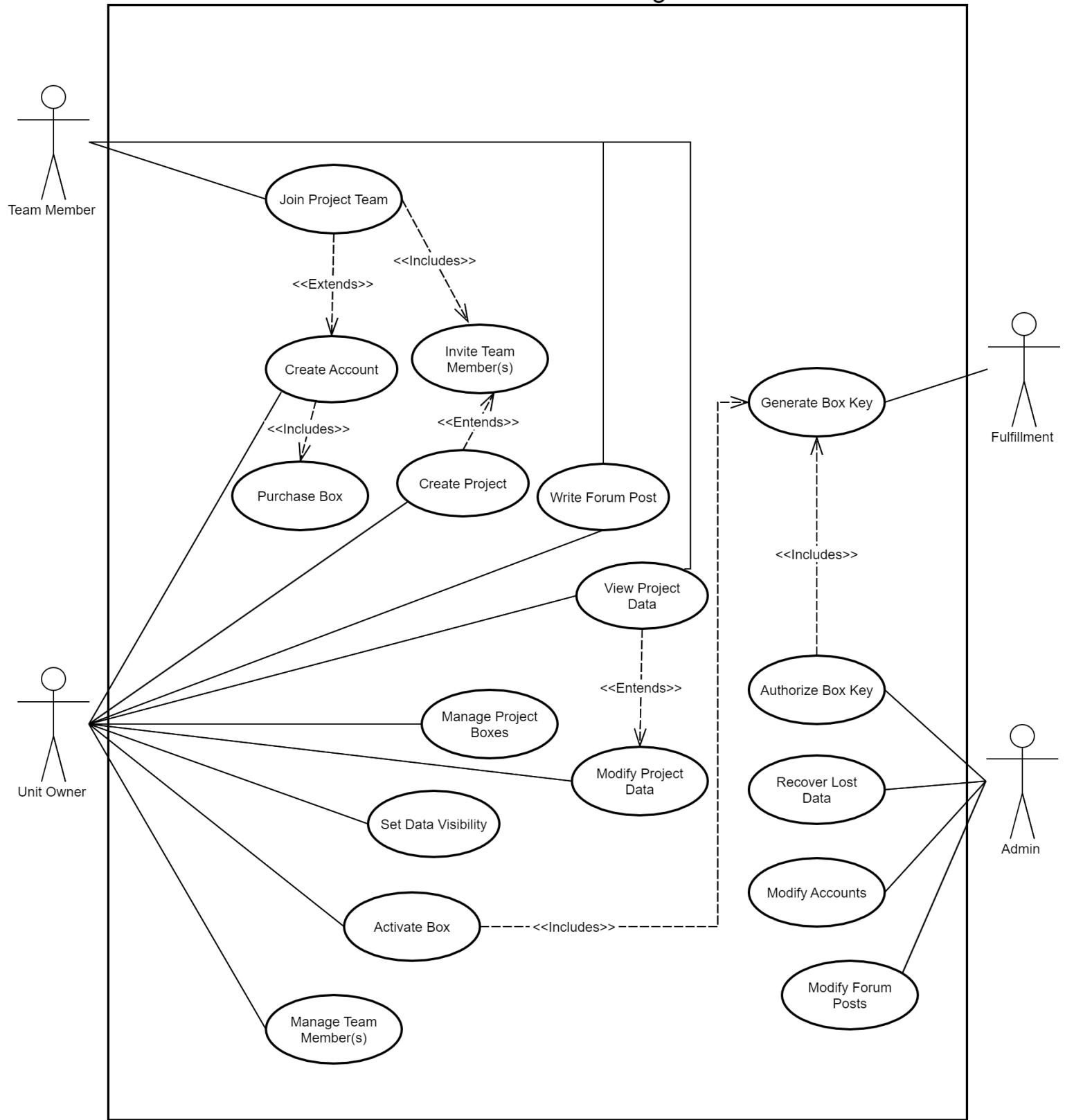
Edit Profile

SITE MAP



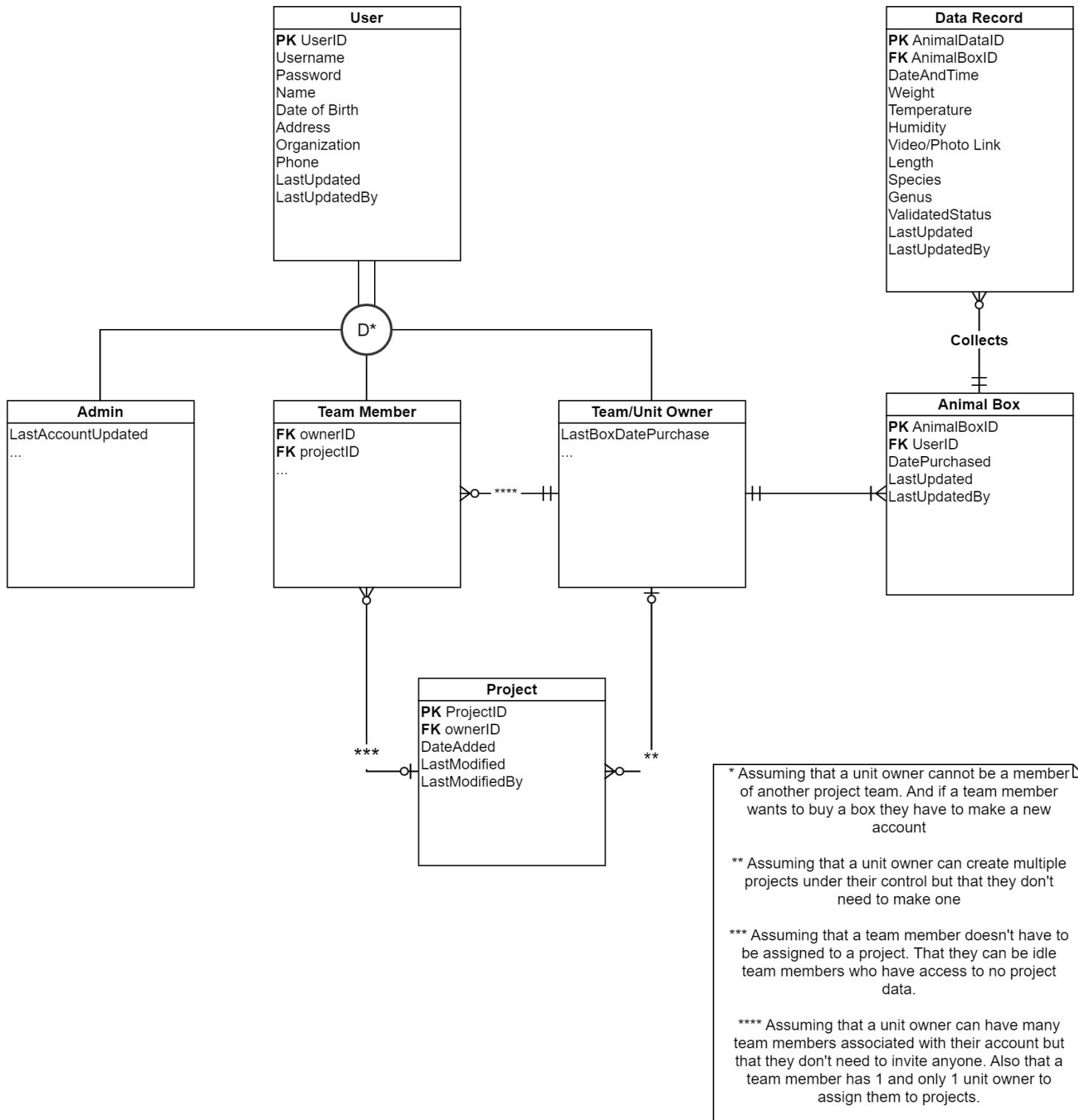
USE CASE DIAGRAMS

Animetrix Use Case Diagram



ENTITY RELATIONSHIP DIAGRAM (ERD)

Animetrix Entity Relationship Diagram



NOTES



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