



Eureka Labs

User's Manual

May 5th ,2019

Revision History

Revision history of this document

Version	Changes	Date
1.0	Initial Draft	5/5/2019

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1. Learners

- 1.1 Learners click on Labs to see all the labs.




- 1.2 Learners click an individual lab, in this case it is WEP Crack via Active Injection


Home About Labs Login



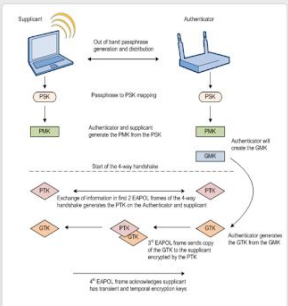
WEP Crack via Active Injection

The purpose of this lab is to continue exploring the vulnerabilities of the...



WEP Crack via Passive Traffic Collection

The purpose of this lab is to understand and exploit the security vulnerabili...




WPA-PSK Crack

WPA Pre-Shared Key (PSK) mode is crackable due to a flaw that exists i...

<https://www.eurekalabs.net/lab/5cc8cc920599dd6b23cc0895>

- 1.3 This is the individual lab page for the WEP Crack via Active Injection



Home About Labs Login

WEP Crack via Active Injection

by Liran Ma

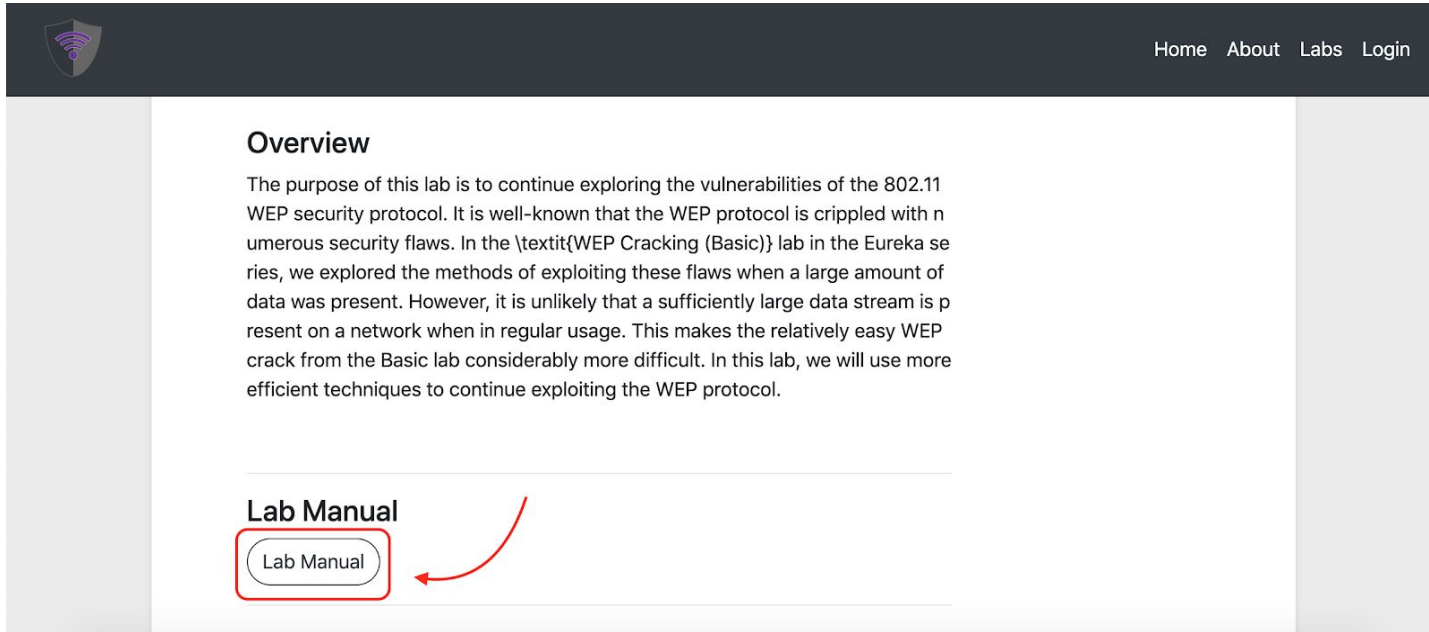
Updated on 2019-05-01



Overview

The purpose of this lab is to continue exploring the vulnerabilities of the 802.11 WEP security protocol. It is well-known that the WEP protocol is crippled with numerous security flaws. In the `WEP Cracking (Basic)` lab in the Eureka series, we explored the methods of exploiting these flaws when a large amount of data was present. However, it is unlikely that a sufficiently large data stream is present on a network when in regular usage. This makes the relatively easy WEP crack from the Basic lab considerably more difficult. In this lab, we will use more

- 1.4 This is where learners can view the Lab Manual for the lab.



The screenshot shows a web page with a dark header bar. On the left is a shield-shaped logo with a Wi-Fi symbol. On the right, the navigation menu includes 'Home', 'About', 'Labs', and 'Login'. The main content area has a white background with a light gray border. It features a section titled 'Overview' with a paragraph of text. Below this, there is a horizontal line, followed by the heading 'Lab Manual' and a button labeled 'Lab Manual'. A red box highlights the button, and a red arrow points from the right towards it.

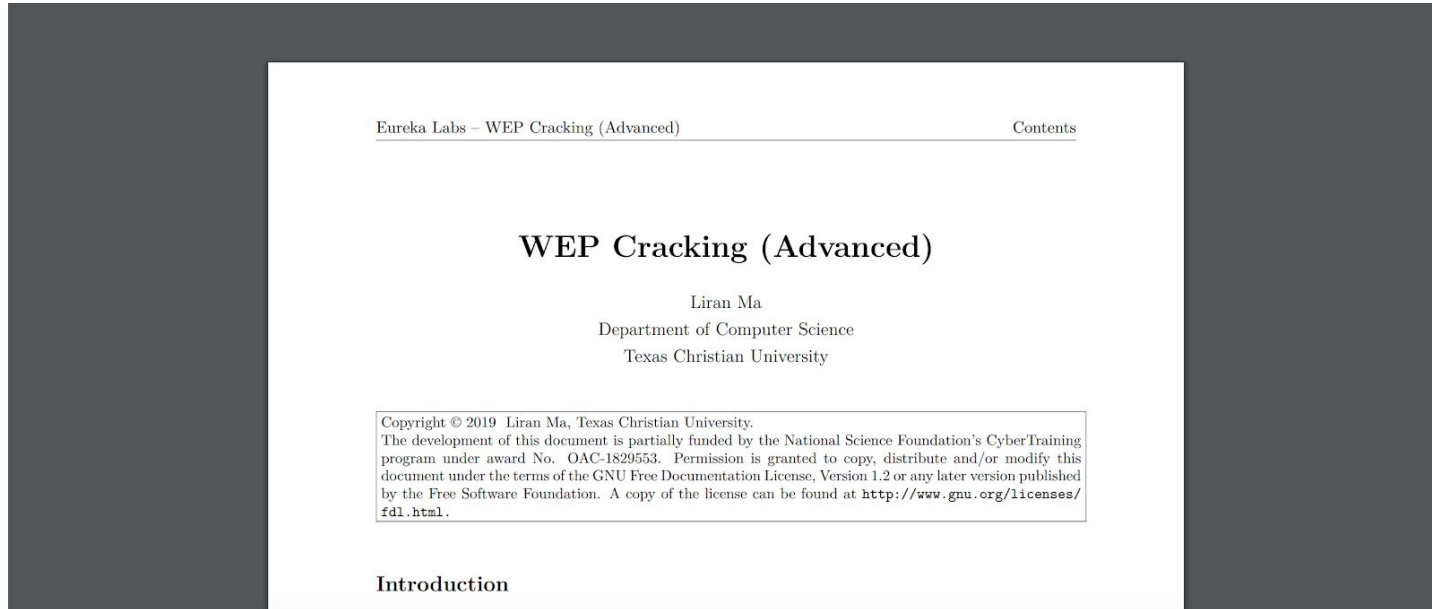
Overview

The purpose of this lab is to continue exploring the vulnerabilities of the 802.11 WEP security protocol. It is well-known that the WEP protocol is crippled with numerous security flaws. In the `WEP Cracking (Basic)` lab in the Eureka series, we explored the methods of exploiting these flaws when a large amount of data was present. However, it is unlikely that a sufficiently large data stream is present on a network when in regular usage. This makes the relatively easy WEP crack from the Basic lab considerably more difficult. In this lab, we will use more efficient techniques to continue exploiting the WEP protocol.

Lab Manual

Lab Manual

- 1.5 This is an example lab manual in this case WEP Cracking Advanced



- 1.6 This is an example of sending a comment to the lab author.

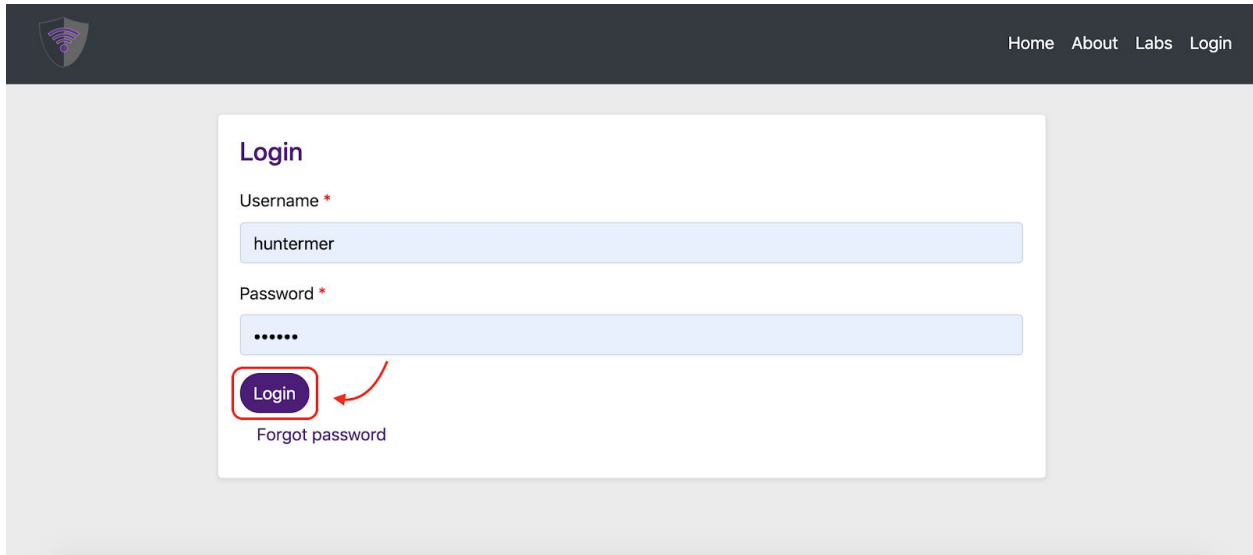
The screenshot shows a web interface with a dark header bar. On the left is a shield-shaped logo with a purple and white design. On the right, the navigation menu includes 'Home', 'About', 'Labs', and 'Login'. The main content area features a form titled 'Questions or Concerns about the Lab?'. The form contains three input fields: 'Name' with the value 'Hunter Merritt', 'Email' with the value 'hunter@example.com', and 'Comment or Concern' with the text 'Hey, I have some questions for you about this lab.'. A green circular icon with a white 'G' is located at the bottom right of the comment field. Below the form is a purple 'Submit' button, which is highlighted with a red rounded rectangle and a red arrow pointing to it from the right.

2. Content Creators

- 2.1 Content Creators click on the login button to start

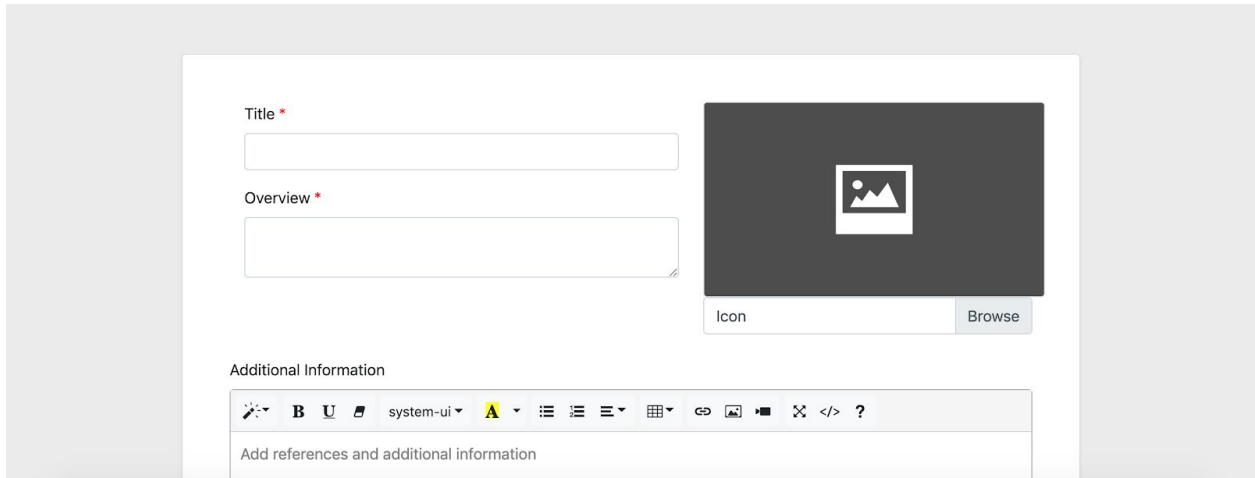


- 2.2 Content Creators then add in their credentials to access their features



The image shows a web application's login interface. At the top, there is a dark navigation bar with a shield icon on the left and links for 'Home', 'About', 'Labs', and 'Login' on the right. The main content area features a white login form with the title 'Login'. The form contains two input fields: 'Username *' with the value 'huntermer' and 'Password *' with masked characters. Below the password field is a purple 'Login' button, which is highlighted with a red circle and a red arrow. Underneath the button is a link for 'Forgot password'.

- 2.3 Content Creators then can pick to create a lab and are shown this screen



- 2.4 By scrolling down they are able to upload the lab they have created

Lab Manual *

Lab Manual

Instructor Manual

Instructor Manual

Additional Attachment(s)

No file chosen

- 2.5 Content Creators are also able to edit their labs

WEP Crack via Active Injection

The purpose of this lab is to continue exploring the vulnerabilities of the 802.11 WEP...

Edit Lab Delete Lab

WEP Crack via Passive Traffic Collection

The purpose of this lab is to understand and exploit the security vulnerabilities of an...

Edit Lab Delete Lab

WPA-PSK Crack

WPA Pre-Shared Key (PSK) mode is crackable due to a flaw that exists in the authentication...


Edit Lab Delete Lab

- 2.6 Content Creators are shown a similar screen to the create but filled out

Editing WEP Crack via Active Injection
Last update: 2019-05-01


Edit Overview *

known that the WEP protocol is crippled with numerous security flaws. In the `WEP Cracking (Basic)` lab in the



icon

Additional Information

 **B** *I* system-ui **A** [bulleted list] [numbered list] [indent] [table] [link] [image] [video] [source code] [help]

- 2.7 Content Creators can then scroll down and update their lab

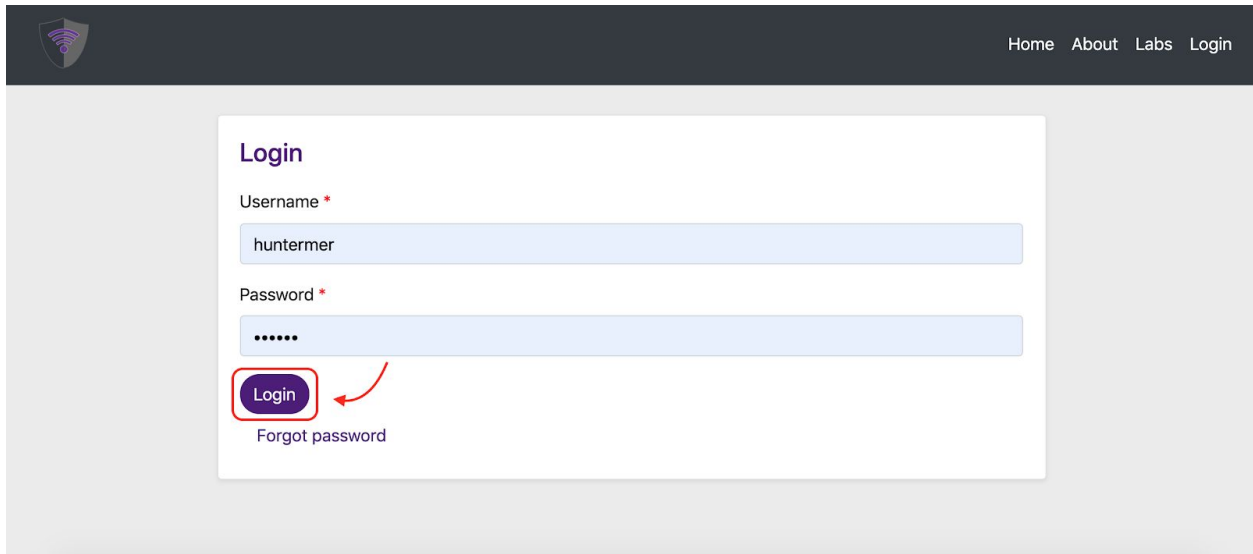
The screenshot shows a web interface for configuring a lab. It features three main sections: 1. 'Current Lab Manual: WepCrackAdvanced.pdf' with a purple 'Change Lab Manual' button. 2. 'Instructor Manual' with a text input field containing 'Instructor Manual' and a 'Browse' button. 3. 'Add Additional Attachment(s)' with a 'Choose Files' button and the text 'No file chosen'. At the bottom left, a purple 'Update' button is highlighted with a red rounded rectangle, and a red arrow points to it from the right.

3. Educator

- 3.1 Educators need to login





- 3.2 Educators sign in with their credentials



The screenshot shows a web application's login page. At the top left is a shield-shaped logo with a Wi-Fi symbol. At the top right are navigation links: Home, About, Labs, and Login. The main content area is a white box with a light gray border. Inside this box, the word "Login" is written in purple. Below it are two input fields: "Username *" containing the text "huntermer" and "Password *" containing six dots. Below the password field is a purple "Login" button with white text, which is highlighted with a red rounded rectangle. A red arrow points from the right side of the password field towards the "Login" button. Below the button is a link that says "Forgot password".


- 3.3 Educators then pick a lab they are interested in


Home About Labs Login



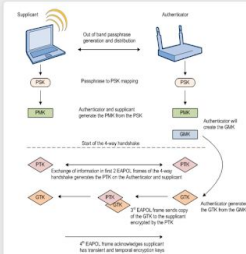
WEP Crack via Active Injection

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WPA Pre-Shared Key (PSK) mode is crackable due to a flaw that exists i...

<https://www.eurekalabs.net/lab/5cc8cc920599dd6b23cc0895>


- 3.4 Educators then can view the lab like a learner

Home About Labs Login

WEP Crack via Active Injection

by Liran Ma

Updated on 2019-05-01



Overview

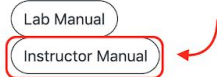
The purpose of this lab is to continue exploring the vulnerabilities of the 802.11 WEP security protocol. It is well-known that the WEP protocol is crippled with numerous security flaws. In the `WEP Cracking (Basic)` lab in the Eureka series, we explored the methods of exploiting these flaws when a large amount of data was present. However, it is unlikely that a sufficiently large data stream is present on a network when in regular usage. This makes the relatively easy WEP crack from the Basic lab considerably more difficult. In this lab, we will use more

- 3.5 Educators also have access to the instructor manual if one is available

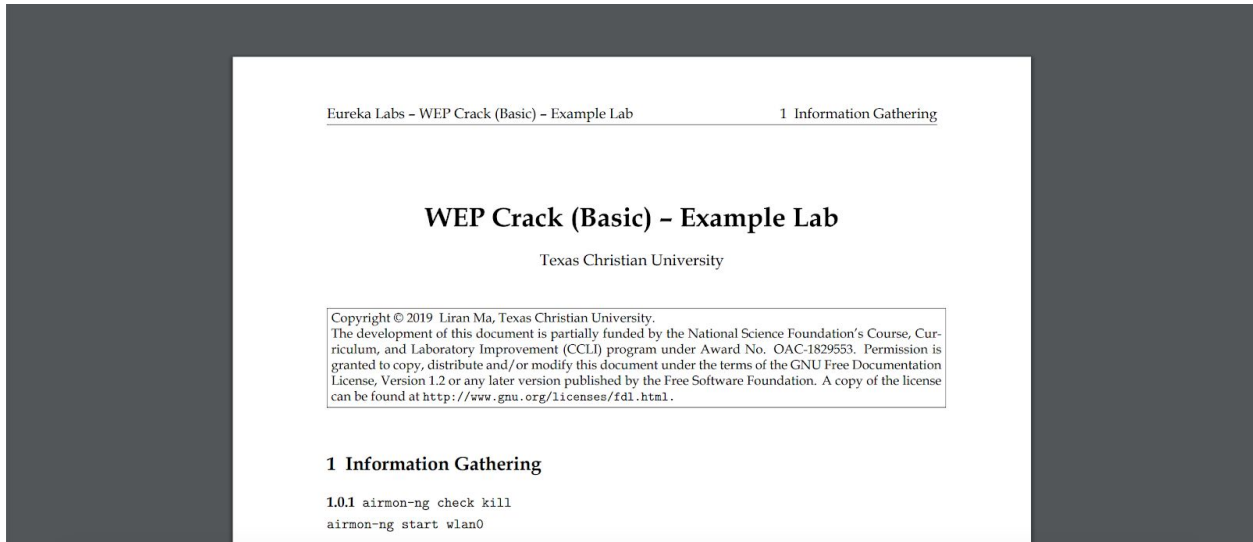
Overview

The purpose of this lab is to understand and exploit the security vulnerabilities of an 802.11 WEP-secured network. You will passively collect enough WEP IV's (Initialization Vectors) to determine the WEP encryption key. After obtaining the key, you will need to masquerade as a legitimate WEP client on the network, access a server, and download a file.

Lab Manual

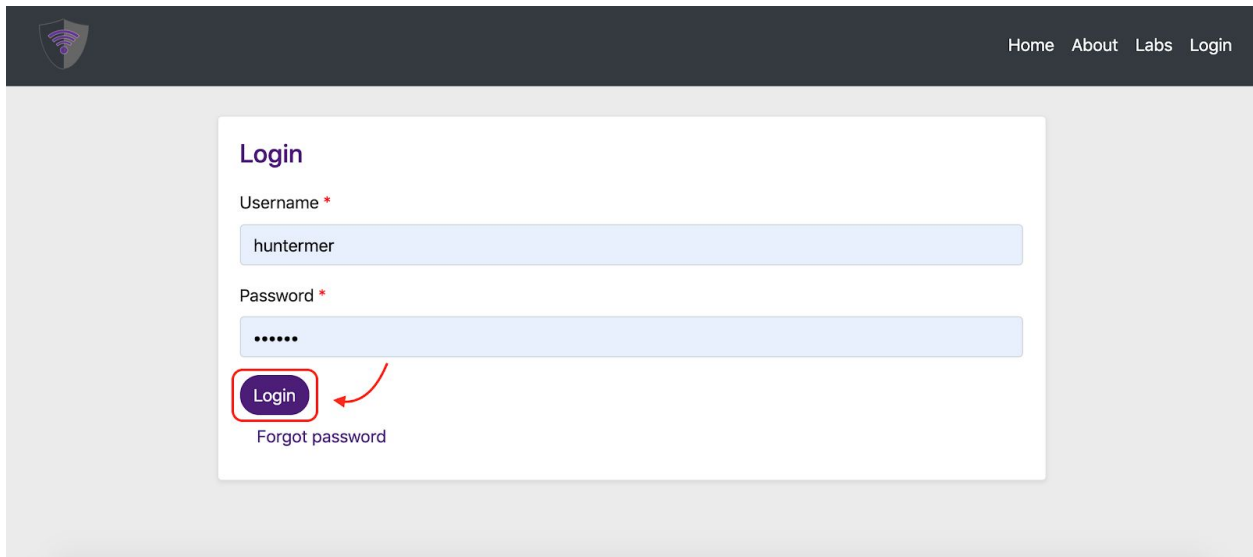


- 3.6 This is an example of what an instructor manual looks like



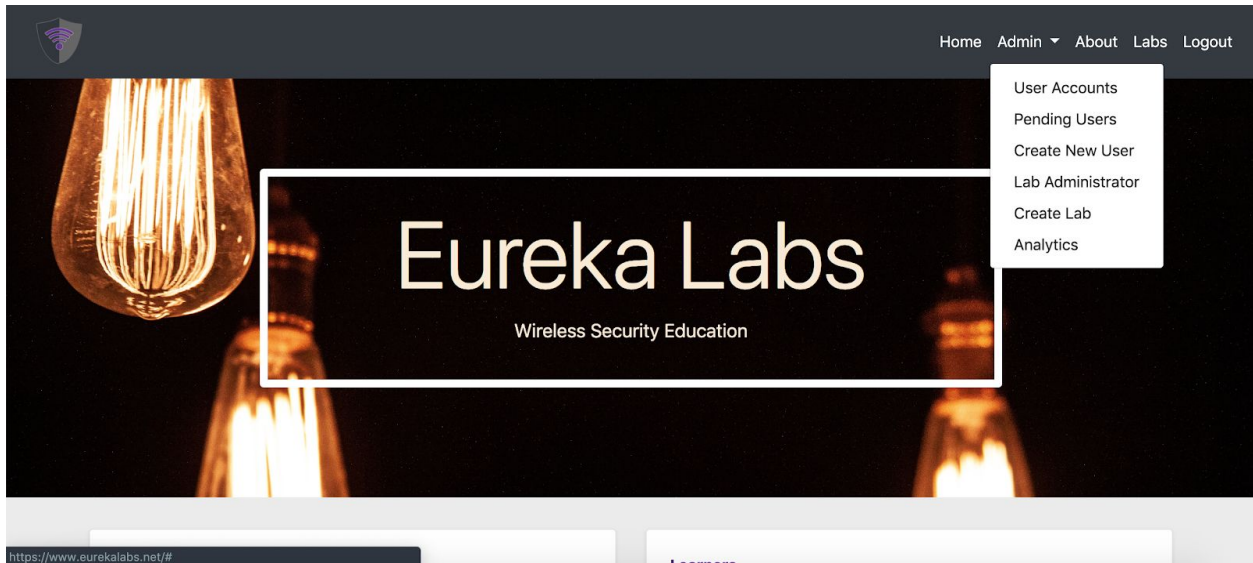
4. Admins

- 4.1 The admin must first login



The image shows a web application's login page. At the top, there is a dark navigation bar with a shield icon on the left and the links "Home", "About", "Labs", and "Login" on the right. The main content area is a light gray box containing a white login form. The form is titled "Login" in purple. It has two input fields: "Username *" with the text "huntermer" and "Password *" with six dots. Below the password field is a purple "Login" button, which is highlighted with a red rounded rectangle and a red arrow pointing to it from the right. Below the button is a link that says "Forgot password".

- 4.2 Then the admin has an option to perform a variety of tasks



- 4.3 The admin can view and edit all the users

Home Admin ▾ About Labs Logout

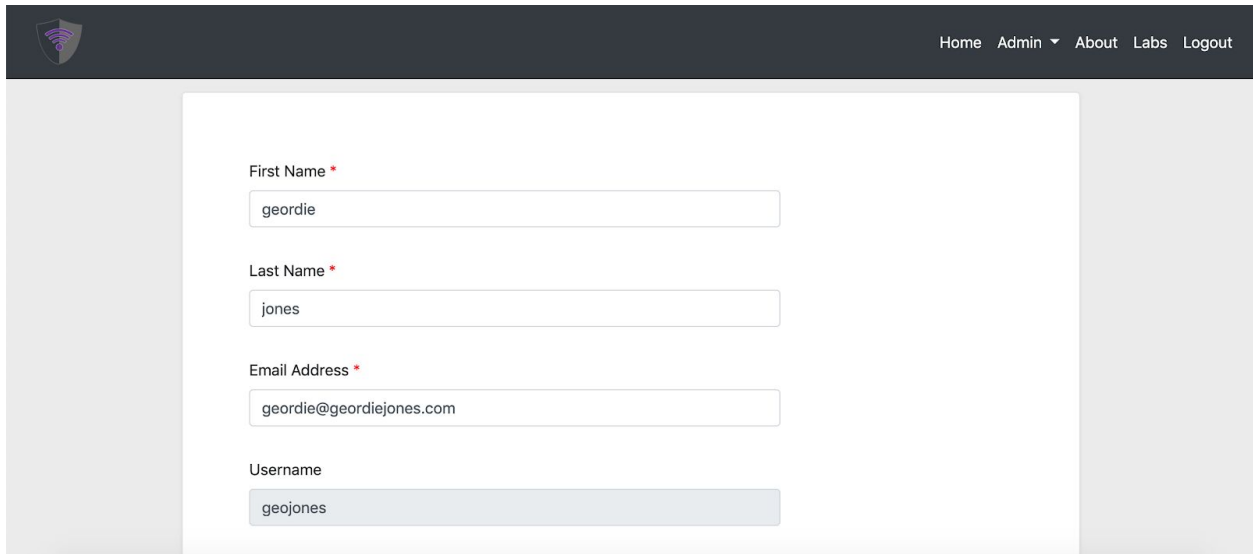
Users

Filter

Role Status Search [Filter](#)

Username	Name	Role	Status		
geojones	geordie jones	admin	Active	Edit	Delete
splendidsun	Bingyang Wei	admin	Active	Edit	Delete
hoangphan7994	Hoang Phan	admin	Active	Edit	Delete

- 4.4 Here an admin can change the users information



The screenshot shows a web application interface with a dark header bar. On the left of the header is a shield-shaped logo with a purple and blue design. On the right of the header are navigation links: "Home", "Admin" (with a dropdown arrow), "About", "Labs", and "Logout". The main content area is a white form with four input fields. The first field is labeled "First Name *" and contains the text "geordie". The second field is labeled "Last Name *" and contains "jones". The third field is labeled "Email Address *" and contains "geordie@geordiejones.com". The fourth field is labeled "Username" and contains "geojones".

Home Admin ▾ About Labs Logout

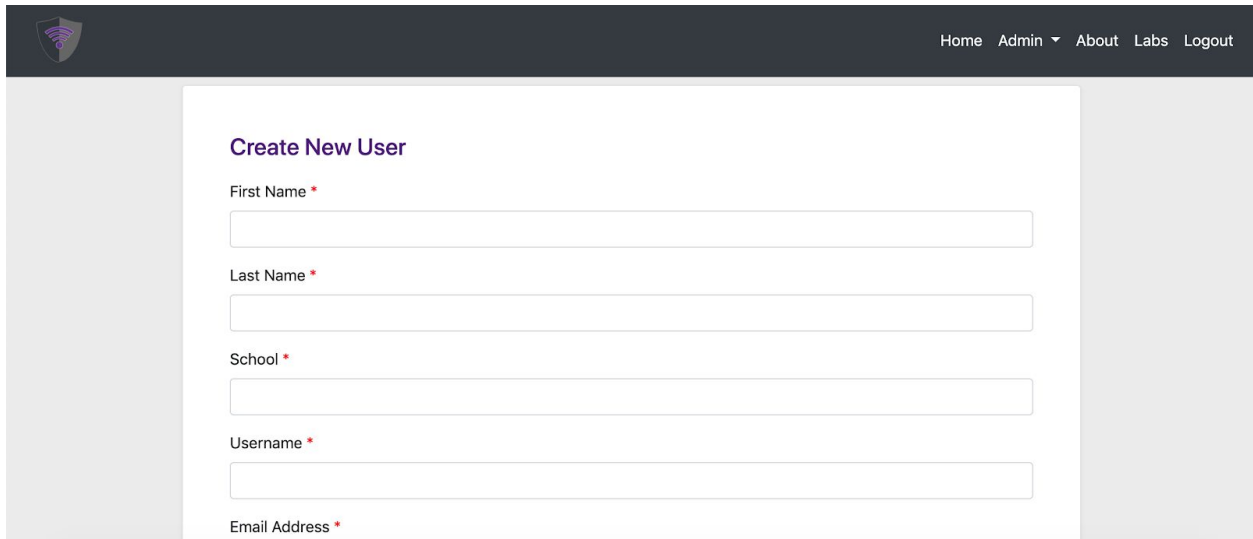
First Name *
geordie

Last Name *
jones

Email Address *
geordie@geordiejones.com

Username
geojones

- 4.5 Here the admin can create a new user account



The screenshot shows a web application interface with a dark header bar. On the left of the header is a shield-shaped logo with a purple and blue design. On the right of the header are navigation links: 'Home', 'Admin' (with a dropdown arrow), 'About', 'Labs', and 'Logout'. The main content area is white and features a form titled 'Create New User' in purple text. The form contains five input fields, each with a red asterisk indicating a required field: 'First Name', 'Last Name', 'School', 'Username', and 'Email Address'. The form is flanked by grey vertical bars on both sides.

- 4.6 Here the admin can view the analytics for the labs

Eureka Labs Analytics

Click any of the table headers to sort by: lab name, views, downloads, or appearances.

Lab Name	Overview	Views	Appearances	Downloads
WEP Crack via Active Injection	The purpose of ...	20	50	4
WEP Crack via Passive Traffic Collection	The purpose of ...	8	52	3
WPA-PSK Crack	WPA Pre-Shared ...	6	49	3