Web Phishing Detection

SCENARIO

Browsing, booking, attending, and rating a local city tour

Entice

How does someone initially become aware of this process?

Enter

What do people experience as they begin the process?

Engage

In the core moments in the process, what happens?

Exit

What do people typically experience as the process finishes?

Extend

What happens after the experience is over?

Steps

What does the person (or group) typically experience?

- Home Page — The user can see the details about the application in home page
- Login Page — The user must login to use our service
- Registration Page — If the user is new to our service, they should have to register.
- Details about our application — The user can explore the features and services of our application in home page
- Login Process — The user should login by entering the credentials in order to detect the URL.
- Login Process — If the user is new to our service, they can register by entering the credentials
- Input the URL — After login, they can input the URL to detect whether the URL is malicious or not
- URL Checking — The entered URL will be checked by passing into the model
- Using of algorithm — The model will be trained by using suitable algorithm
- Display the result — The detection result whether it is phishing or not will be displayed in front end.
- logout — After the user finishes their process, they can logout from the application
- History of the detection — The history of the detected URL will be saved automatically

Interactions

What interactions do they have at each step along the way?

- **People:** Who do they see or talk to?
- **Places:** Where are they?
- **Things:** What digital touchpoints or physical objects would they use?

- This website will be accessed through any devices with responsiveness.
- Only the browser, URL is required to process the service.
- Business man, working employees, common people can use this application
- The user can see the precaution technique and report option
- This website is responsive in any kind of devices
- This website is easily accessible
- The result will be displayed in the user interface if the process gets complete.
- Blacklist and whitelist approaches are the traditional techniques to identify the phishing.

Goals & motivations

At each step, what is a person's primary goal or motivation? ("Help me..." or "Help me avoid...")

- To secure the user sensitive data from hackers
- To avoid losing of money
- To avoid the losing of private data.
- To know that the website is malicious or not.
- Getting clarified about the phishing websites
- Enhance the security of the websites at the time of developing

Positive moments

What steps does a typical person find enjoyable, productive, fun, motivating, delightful, or exciting?

- When the site is detected as phishing, the user should not give the data further.
- The user is already knows the phishing website and they guessed it.
- The user can detect the malicious website by just feeding the input URL to the application
- The user is satisfied on knowing whether the site is phishing or not.
- Detect and prevent against unknown phishing attacks, as new patterns are created by hackers

Negative moments

What steps does a typical person find frustrating, confusing, angering, costly, or time-consuming?

- If the internet is disconnected, this application won't work
- It is the manual process. So, the user cannot verify for all the websites.
- Searching of deleted websites
- The user is already provided information even before if the website is detected as phishing site.
- A new phishing website may prove to be detrimental because it has not been added to the blacklist yet

Areas of opportunity

- Detecting all the sites using this product
- Identifying the phishing sites
- Facility to report the detected malicious website
- Applying ML techniques in the proposed approach in order to analyze the real time URLs and produce correct results.
- Next level of intelligence on top of signature based prevention techniques and blacklists