

1.0 INTRODUCTION

The purpose of both logical and physical architectural specifications is to specify and record the logical and physical components of a system to offer clarity on how those component parts relate to one another. The objects produced by either endeavor may be written documentation or diagrams, and both has merits and disadvantages.

Logical Architecture

Logical Architecture can give as much detail as possible without limiting the architecture to one type of technology or setting. For example, a diagram that shows the relationship between two things.

The intellectual design of a system is frequently more important than the physical architecture. So long as the mechanisms for deploying, living on, connecting to, and using the many physical components that correspond to the logical components are in place, and any physical architectural restrictions are considered, where any component resides isn't as critical. So, a physical architecture breakdown is typically a nice-to-have, or even a should-have. That also implies the structure in question isn't so widespread that it must be documented. There are a lot of systems out there that have the same three-tier structure, with a request-response cycle that goes like this:

- In the Presentation Tier, a person asks for something.
- In the Application Tier, that request is sent to work on.
- The application gets any data it needs from the Data Tier, and it may do some manipulation or aggregation of it while it's doing that as well.
- The Application Tier makes a response and sends it back to the Presentation Tier, which can use it.
- The Presentation Tier sends that answer to the user.

When people use web apps, this three-tier architecture is very common.

- This is the web server that makes it possible for people to see your site.
- The Application Tier is the code that the web server calls and the code that the web server sends back. It can be written in any language and/or framework.
- The Data Tier is one of several types of back-end data stores that keep application data safe between requests.

Physical Architecture

Physical Architecture gives enough detail to implement the architecture on a technology. For example, a specification of software services and components.

The main difference between logical and physical architecture documentation is that logical architecture only focuses on what the system does. Physical architecture, on the other hand, takes things a step further and identifies the actual devices that those functional elements run on. Physically, some of the things in logical architecture may be on the same things.

The only thing that could stop is the performance and capabilities of the physical device itself. This means that these different physical architectures are all logically the same. They are all valid ways to build the same three-tier web application.

2.0 TOOLS

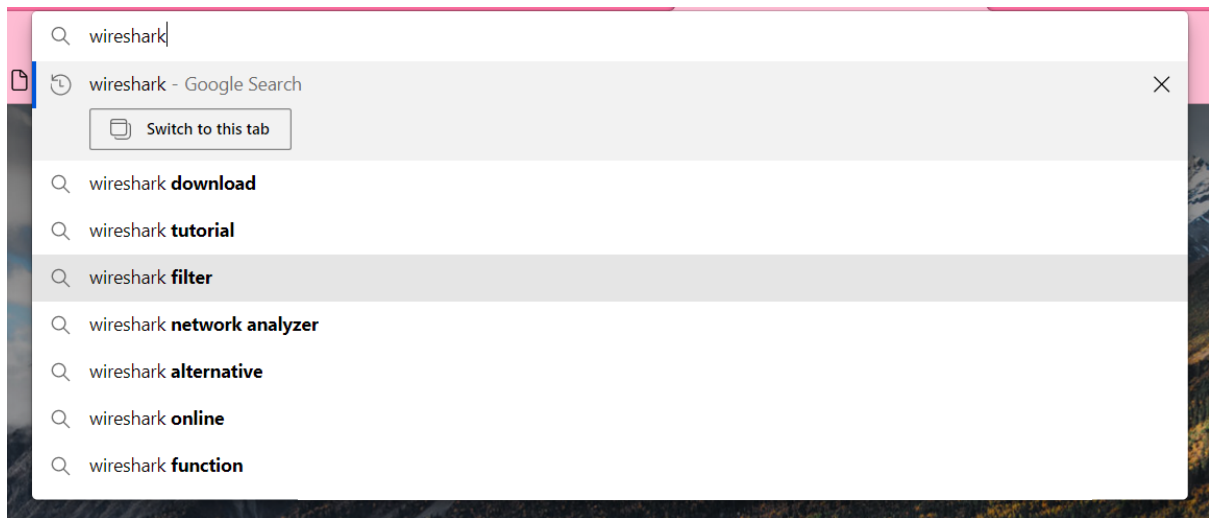
Wireshark is an open-sourced network protocol analysis software program. It was founded in 1998 by Gerald Combs. Wireshark is supported by Software developers and global organization of network specialists, who continue to make updates for new network technology and encryption methods.

It is certainly risk-free. Wireshark has been used by corporations, government agencies, small businesses and even educational institutions either for teaching or troubleshooting purposes.

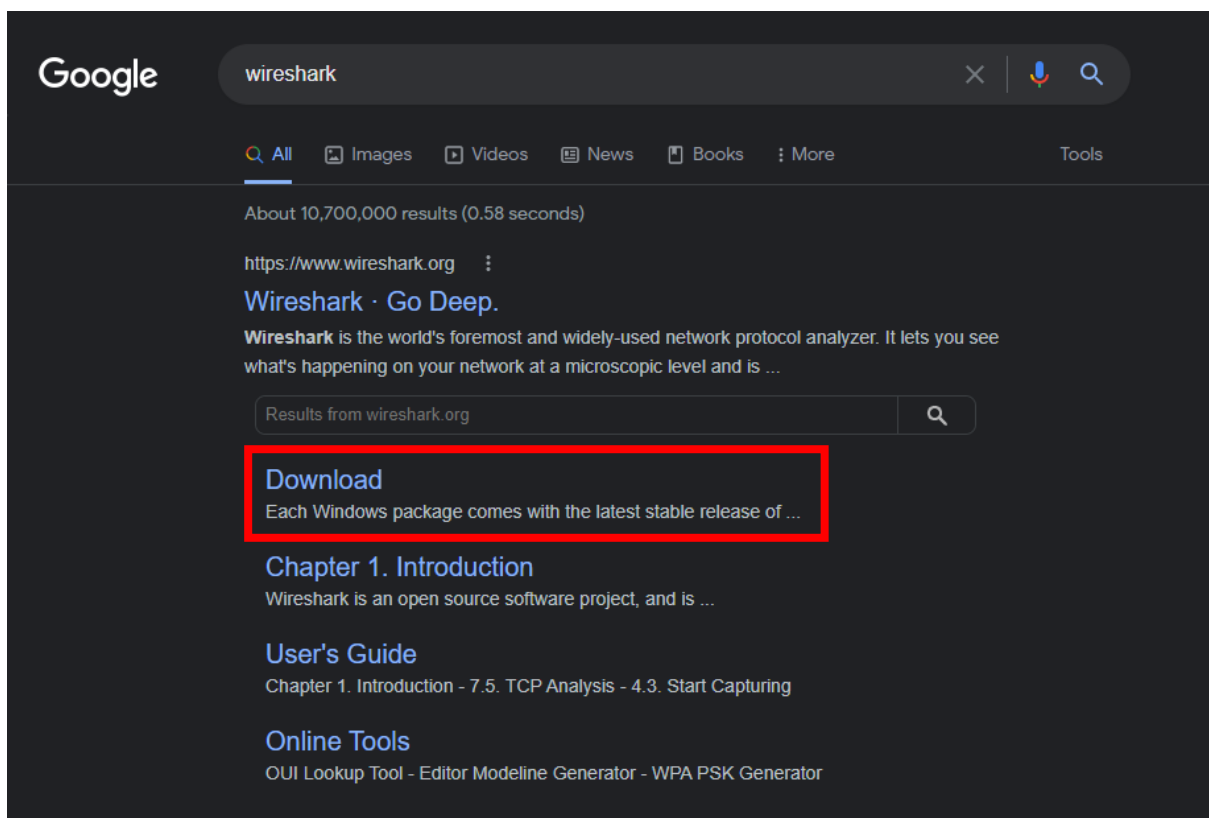
Wireshark is a packet sniffer and analysis tool. It captures network traffic on local network and stores data for offline analysis. It can capture network traffic from Wireless (IEEE.802.11), Bluetooth, Ethernet and more.

This software allows user to filter the log either before capturing begin or during analysis. By doing so can narrow down and pinpoint on what the user are searching in the network trace.

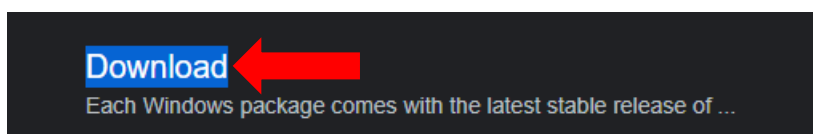
3.0 STEPS



Step 1: Open web browser and search 'Wireshark'. Click 'Enter'.




Step 2: Select 'Download'.



Download Wireshark

The current stable release of Wireshark is 3.6.3. It supersedes all previous releases.

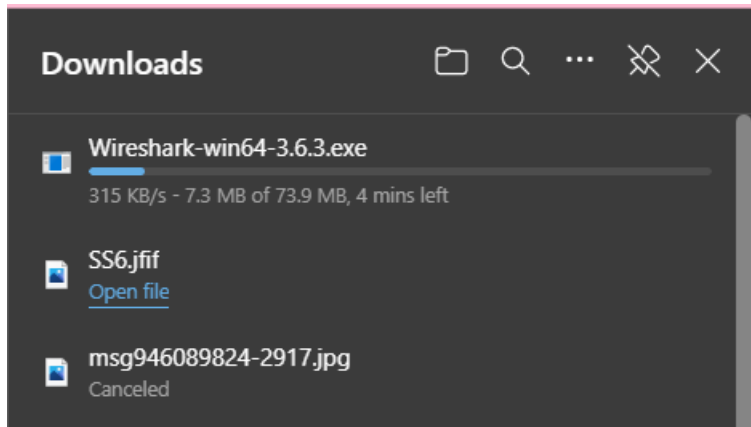
Stable Release (3.6.3)		^
	Windows Installer (64-bit)	
	Windows Installer (32-bit)	
	Windows PortableApps® (64-bit)	
	Windows PortableApps® (32-bit)	
	macOS Arm 64-bit .dmg	
	macOS Intel 64-bit .dmg	
	Source Code	
Old Stable Release (3.4.13)		^
Documentation		^

Step 3: Select your installer that is best suited for your device.

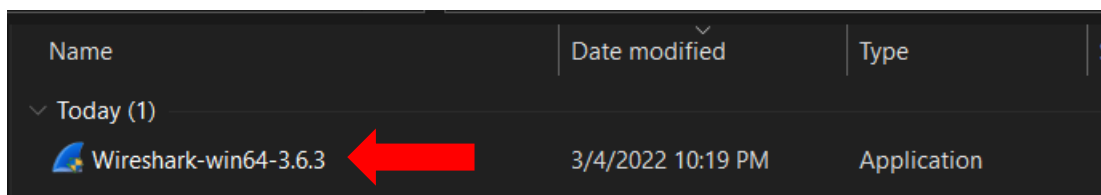
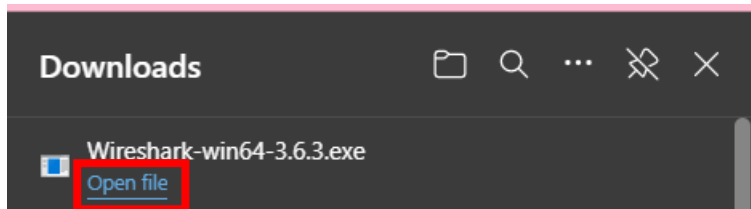
Download Wireshark

The current stable release of Wireshark is 3.6.3. It supersedes all previous releases.

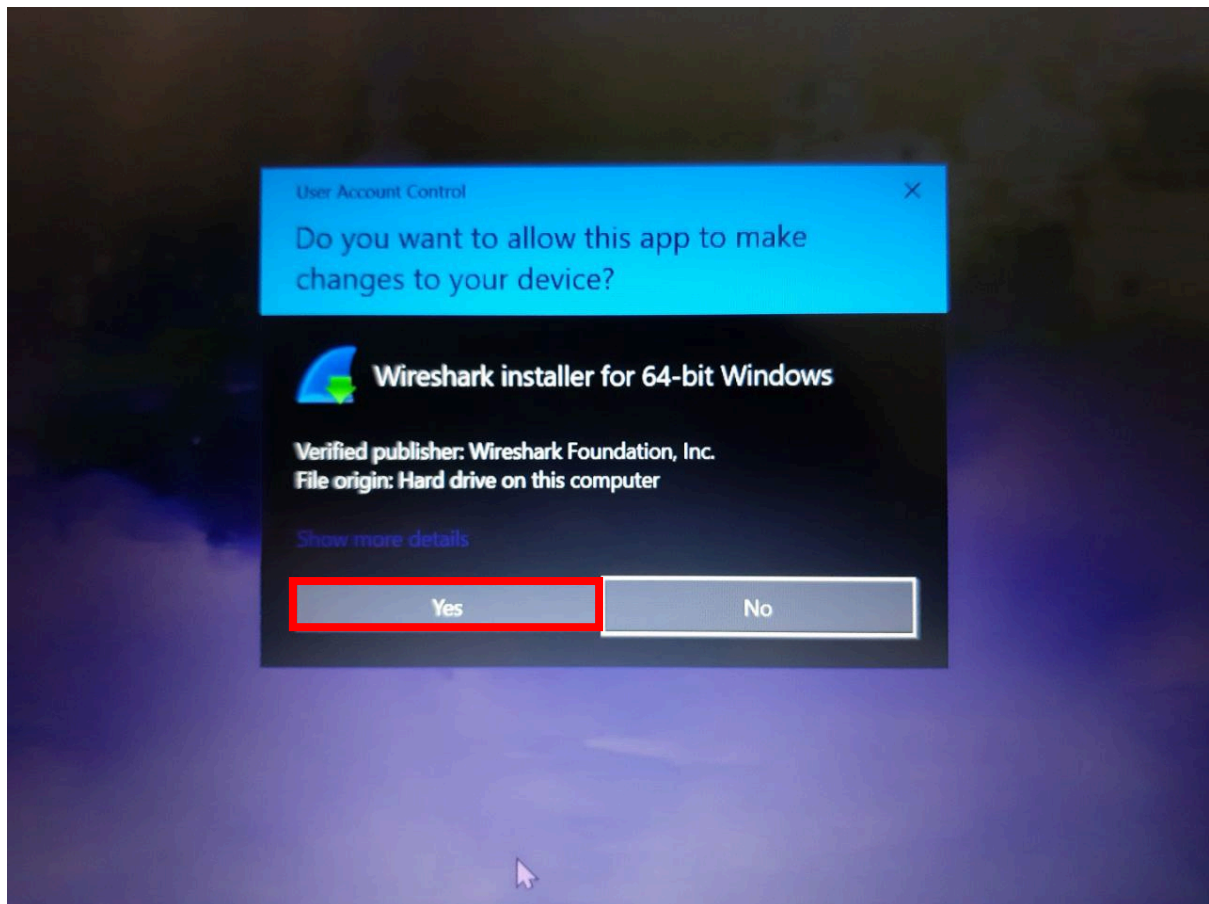
Stable Release (3.6.3)		^
	Windows Installer (64-bit)	
	Windows Installer (32-bit)	
	Windows PortableApps® (64-bit)	
	Windows PortableApps® (32-bit)	
	macOS Arm 64-bit .dmg	
	macOS Intel 64-bit .dmg	
	Source Code	
Old Stable Release (3.4.13)		^
Documentation		^



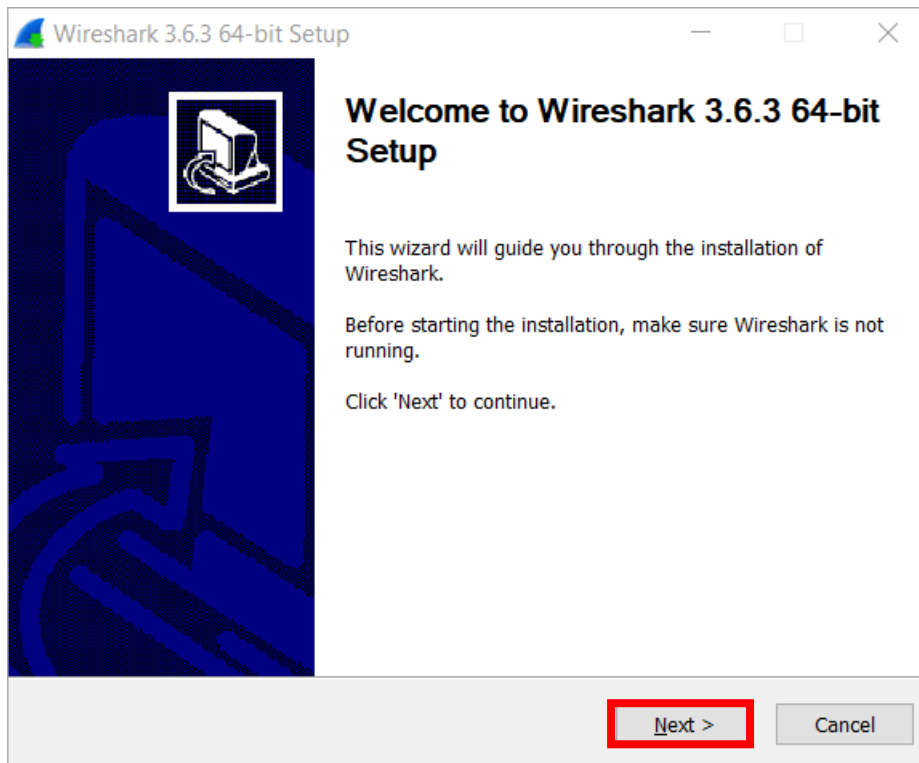
Step 4: Wait for the app to download.



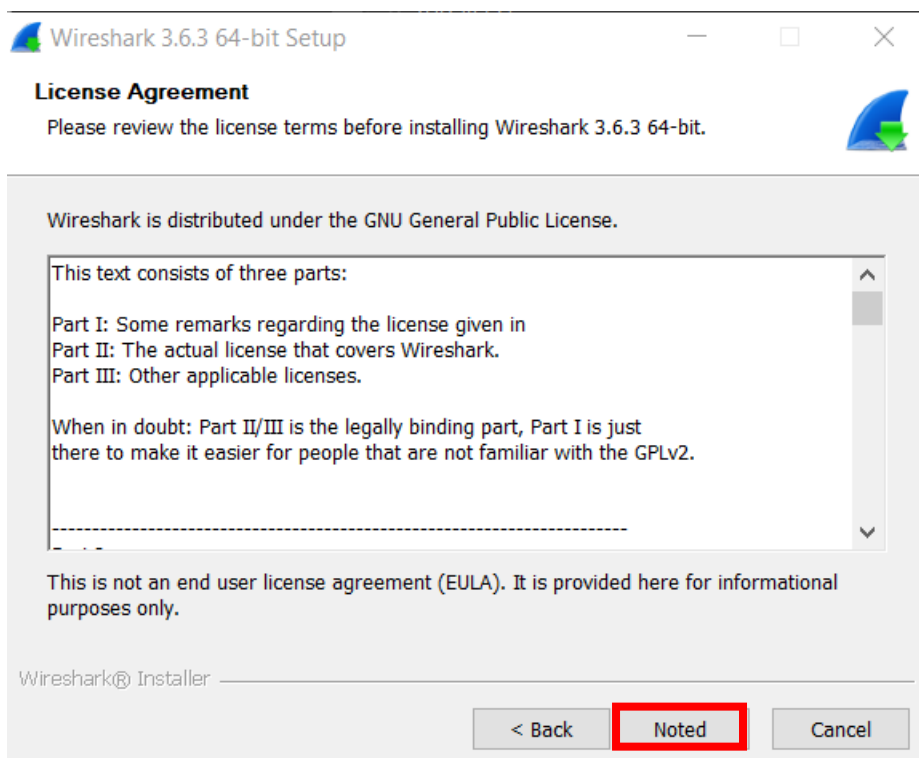
Step 5: Once it is done downloading, proceed to open the app.



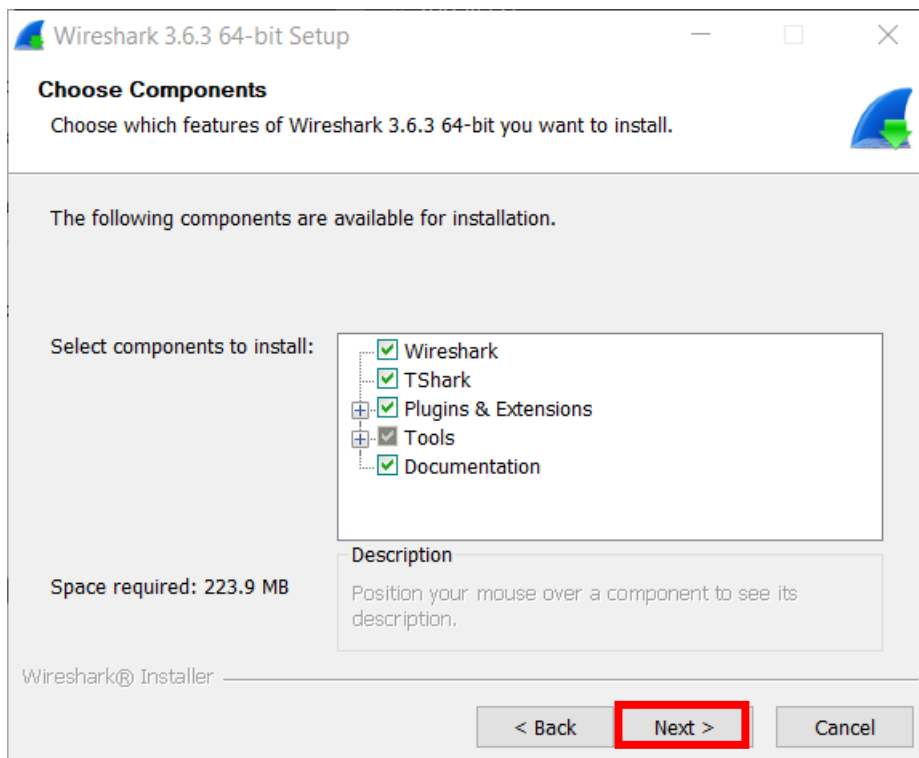
Step 6: Click 'Yes' to allow the app to make changes to your device.



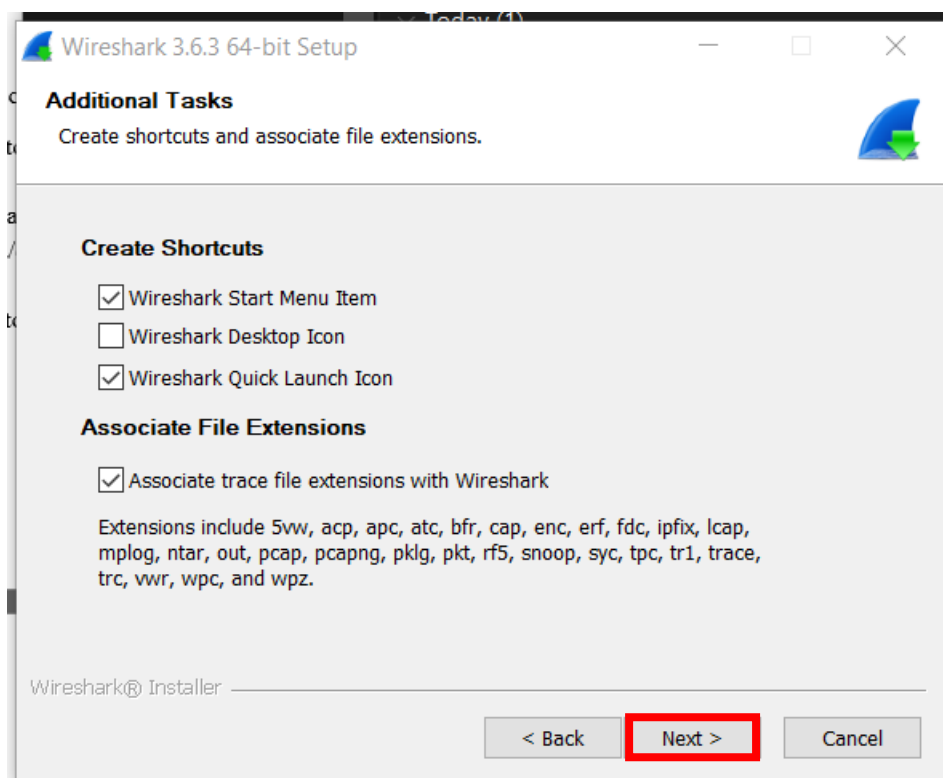
Step 7: Select 'Next' to continue.



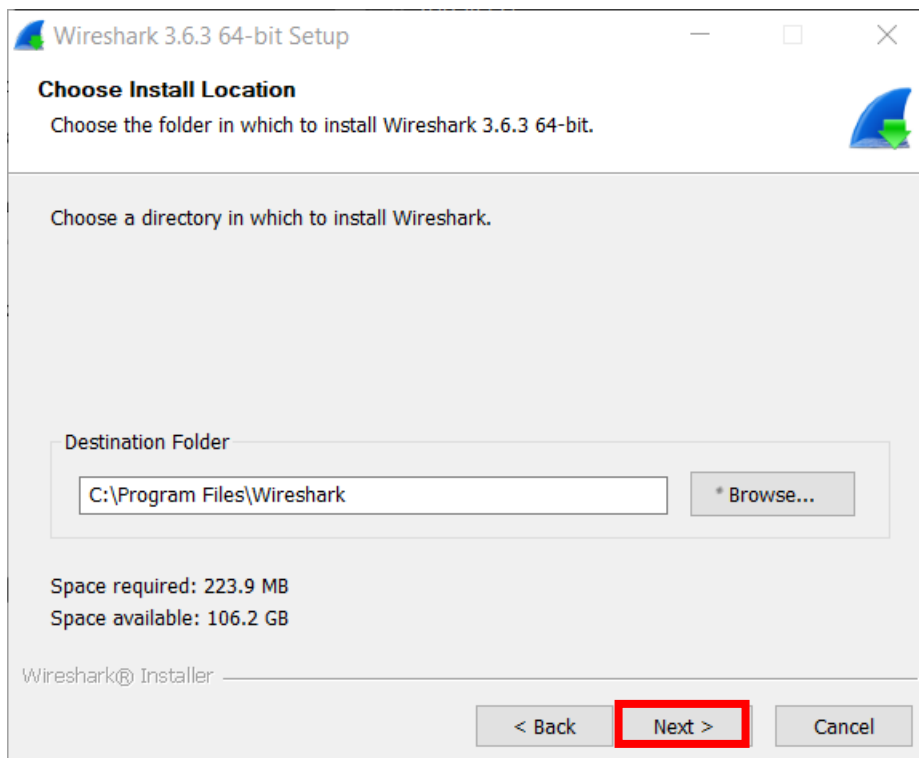
Step 8: Click 'Noted'.



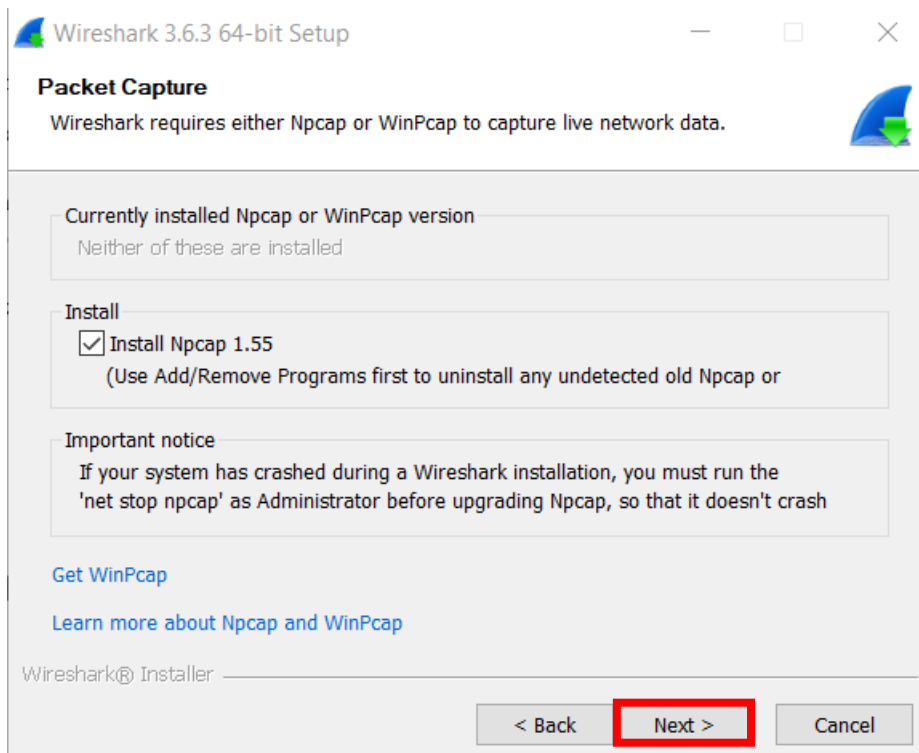
Step 9: Select 'Next' to continue with the installation.



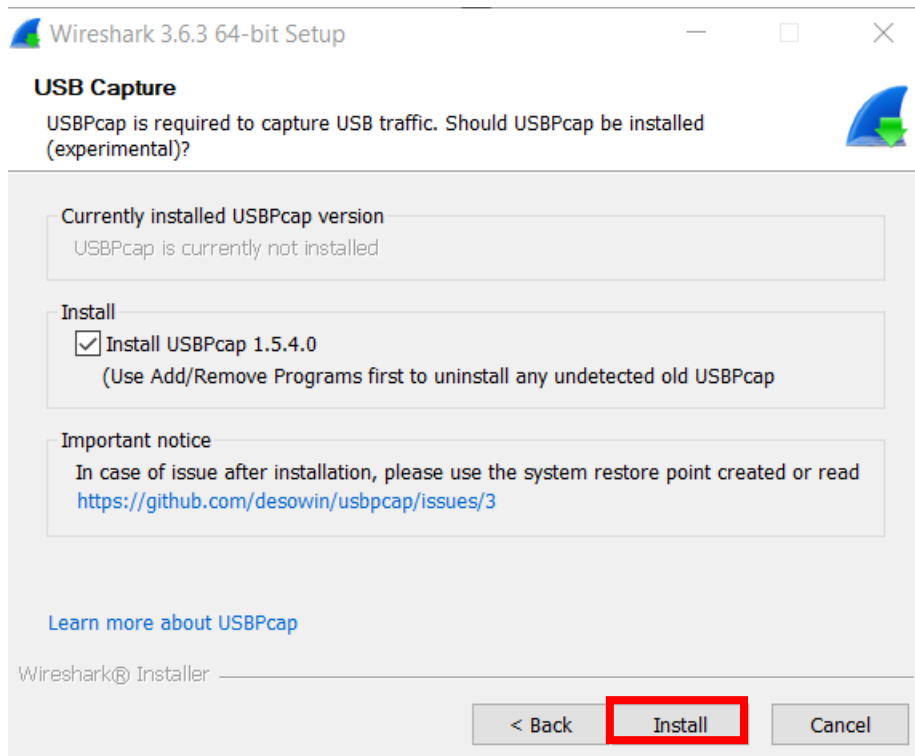
Step 10: Tick the wanted boxes and then, click 'Next'.



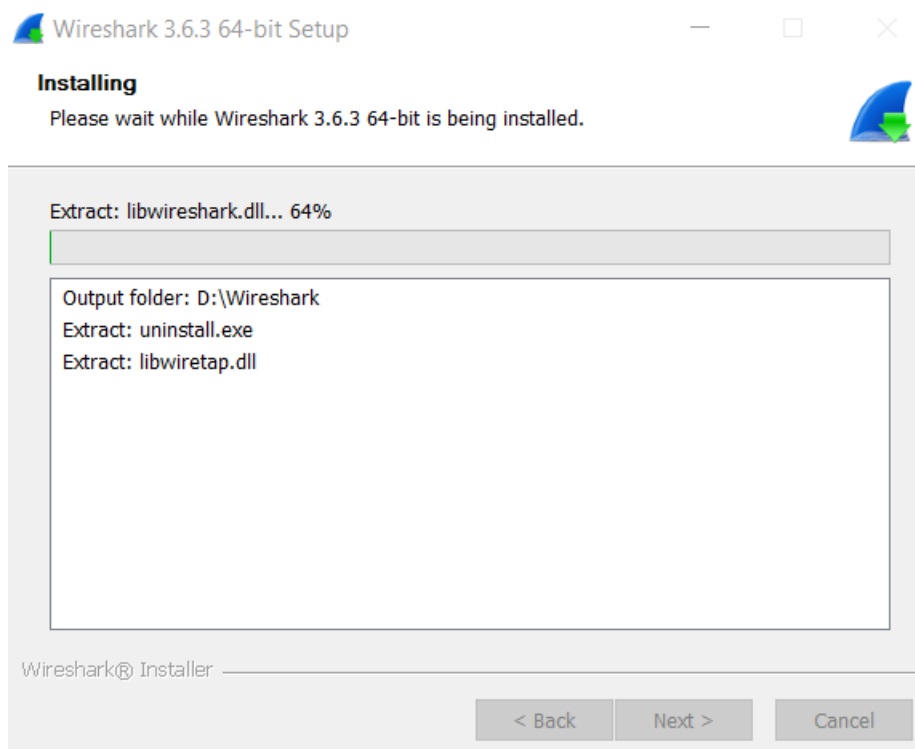
Step 11: Choose desired destination folder by clicking 'Browse...' or leave the default folder as it is. Click 'Next' to continue.



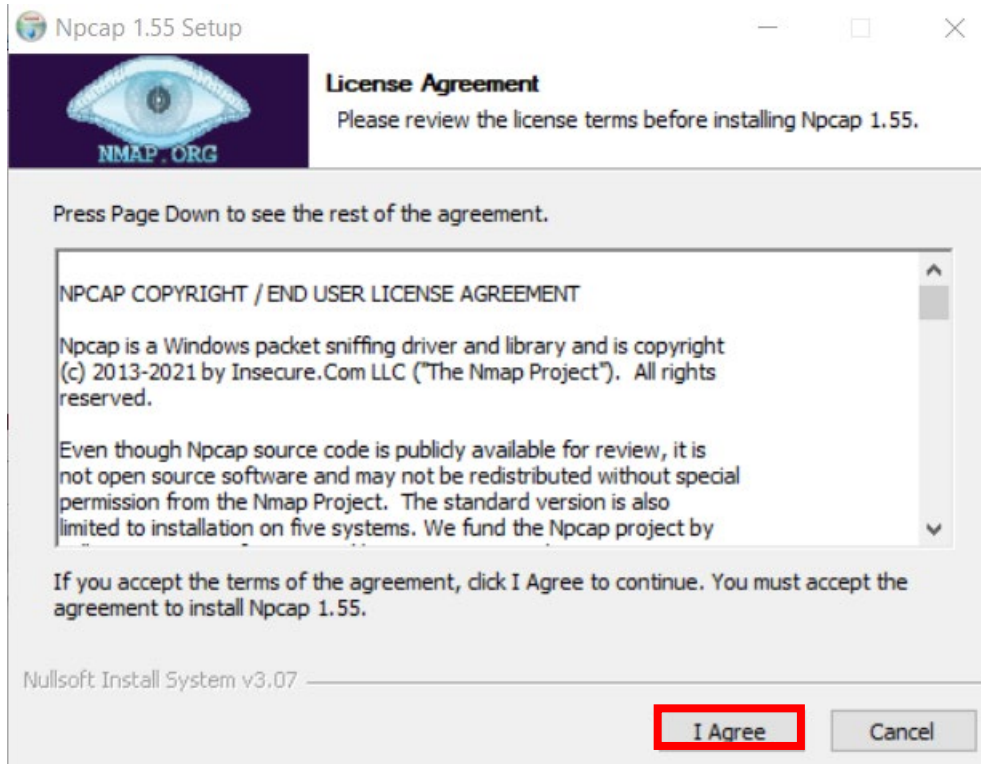
Continue clicking 'Next'.



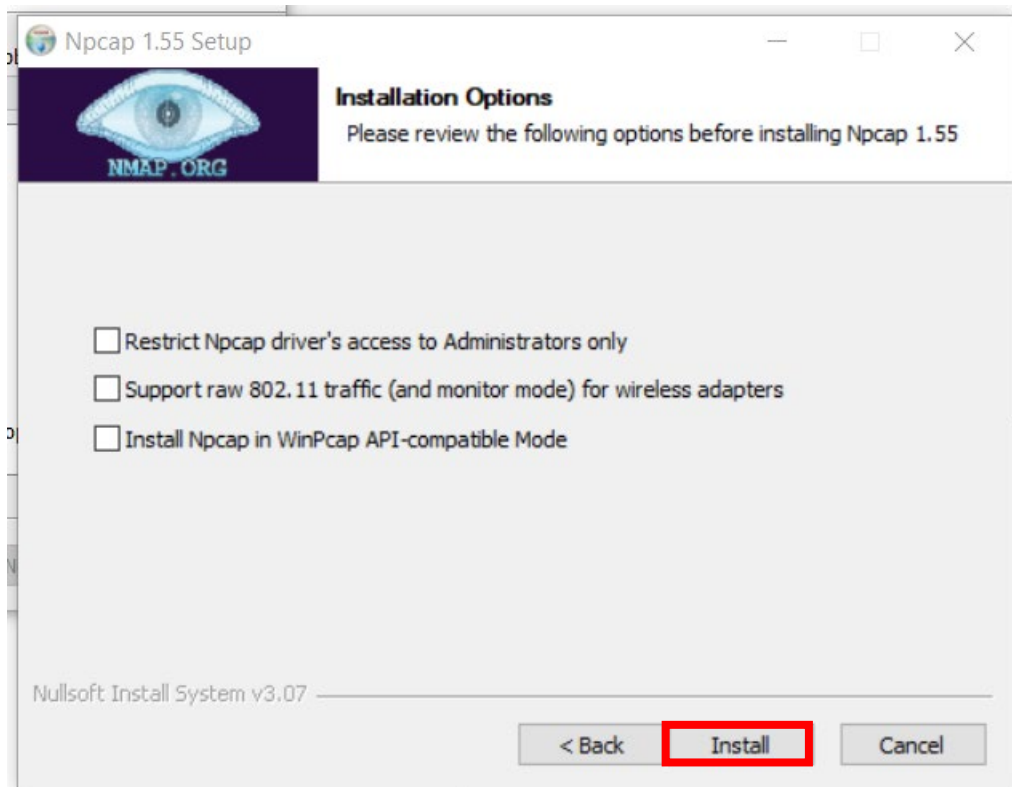
Select 'Install' to proceed installation.



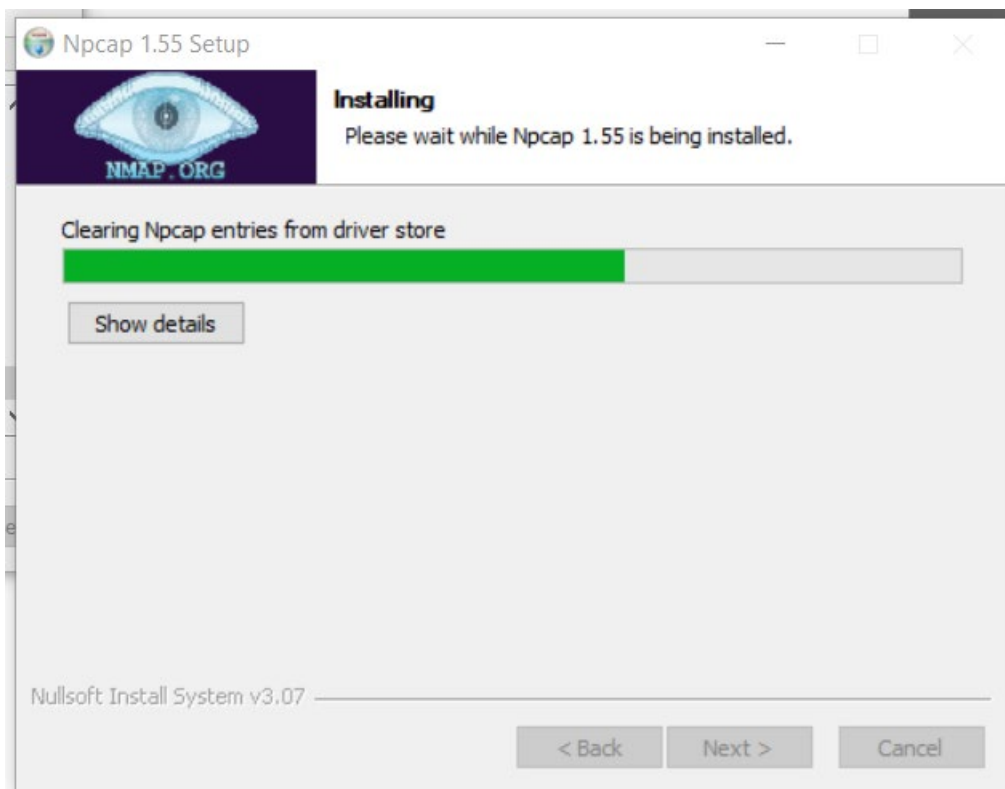
Wait for it to complete.



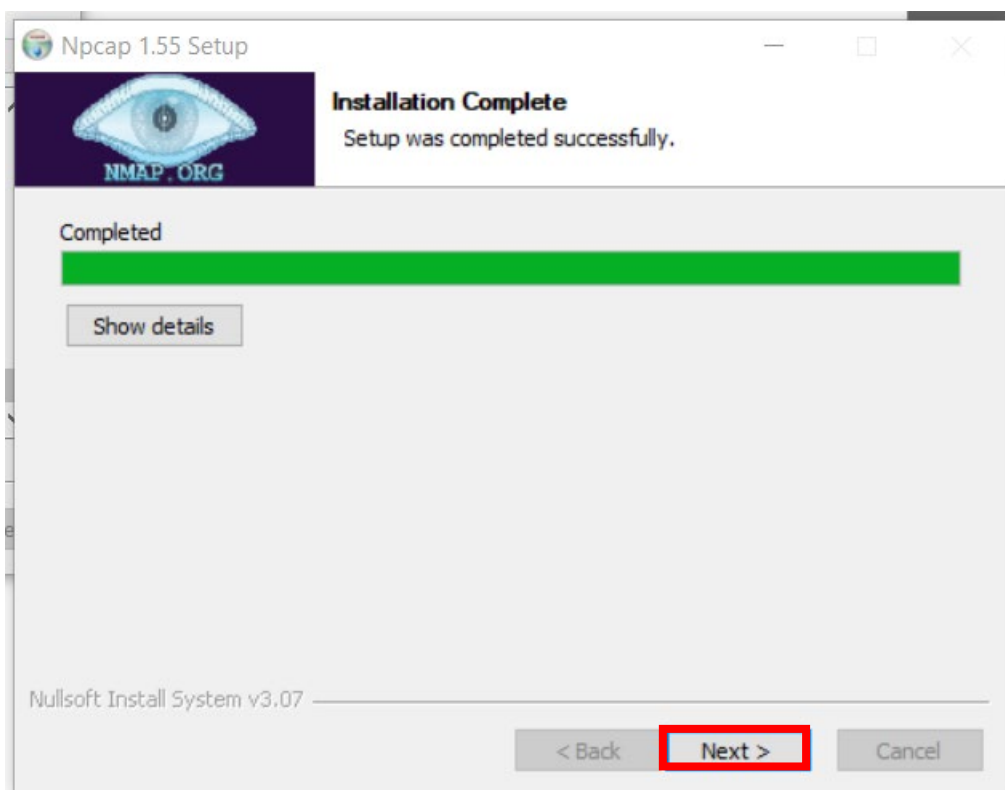
Step 12: Upon installing Wireshark, License Agreement will pop-up. Click ‘I Agree’.



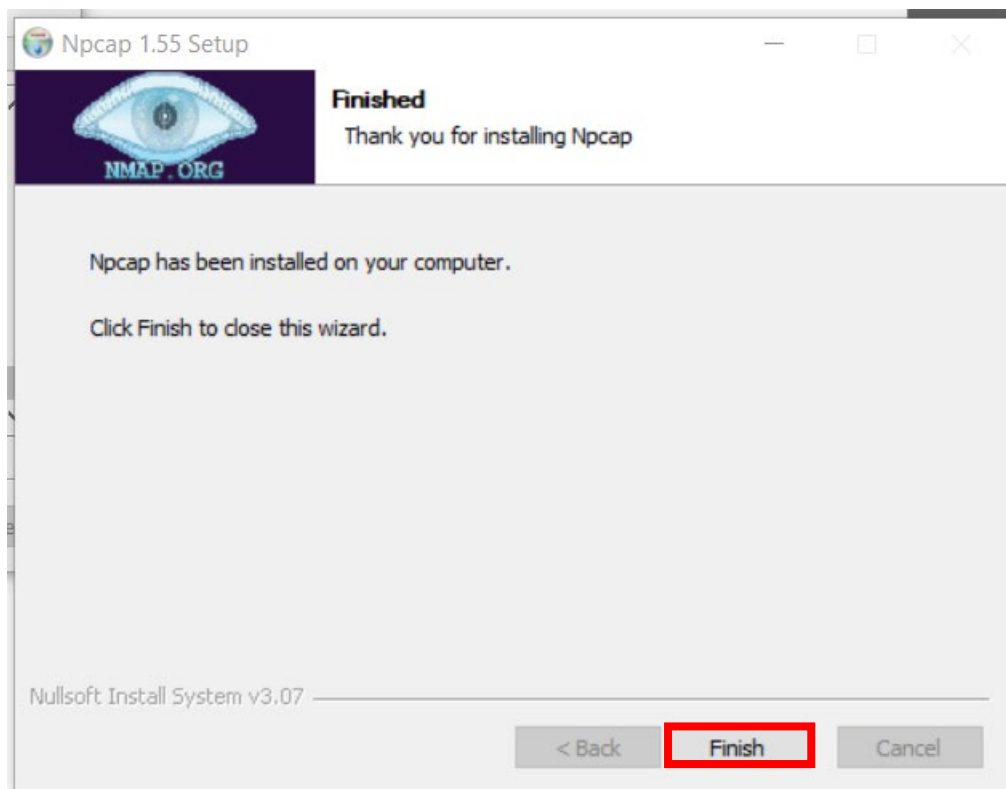
You can tick wanted boxes or leave it empty. Then, select ‘Install’.



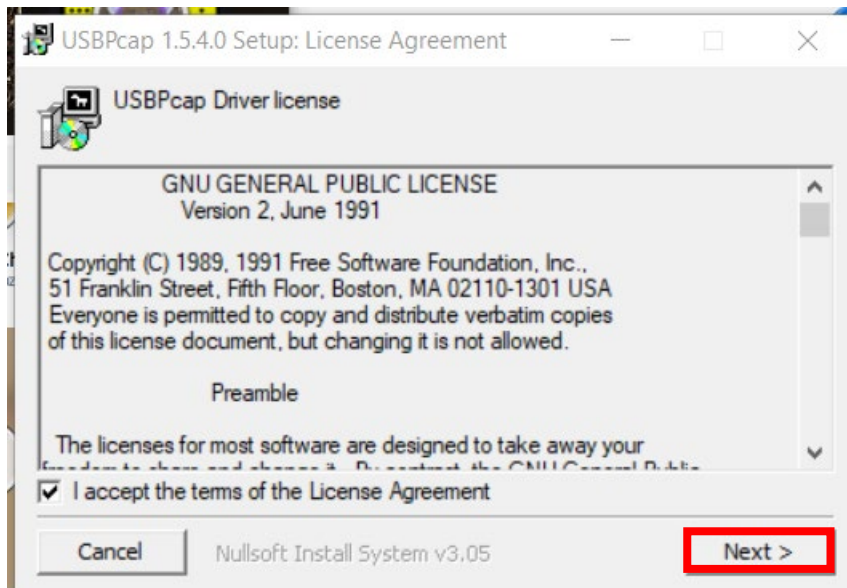
Wait for it complete.



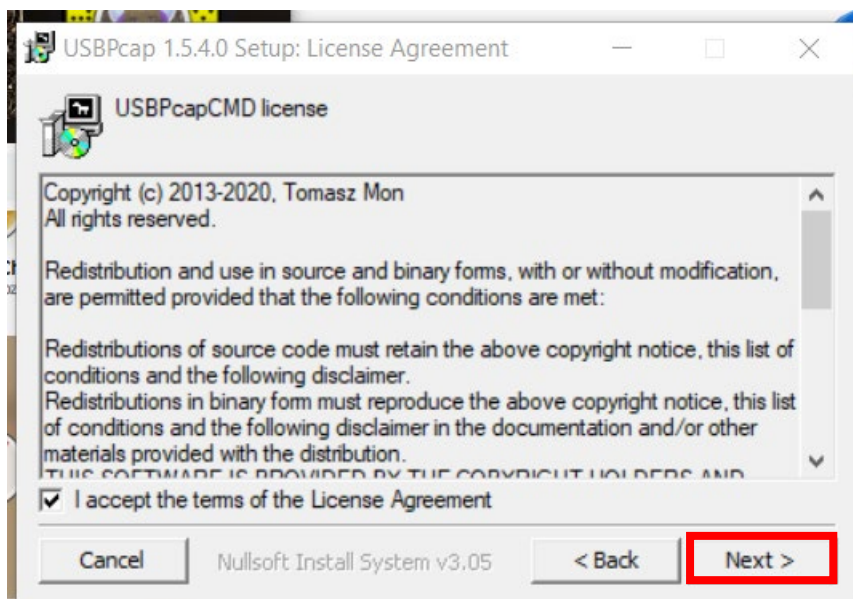
Step 13: Click 'Next' to proceed.



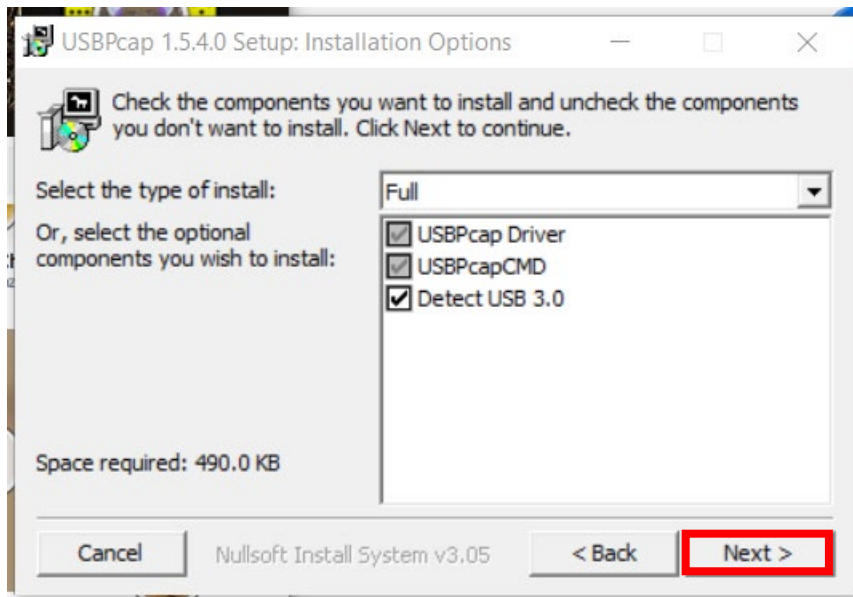
Step 14: Now that it has done installing Npcap, select 'Finish'.



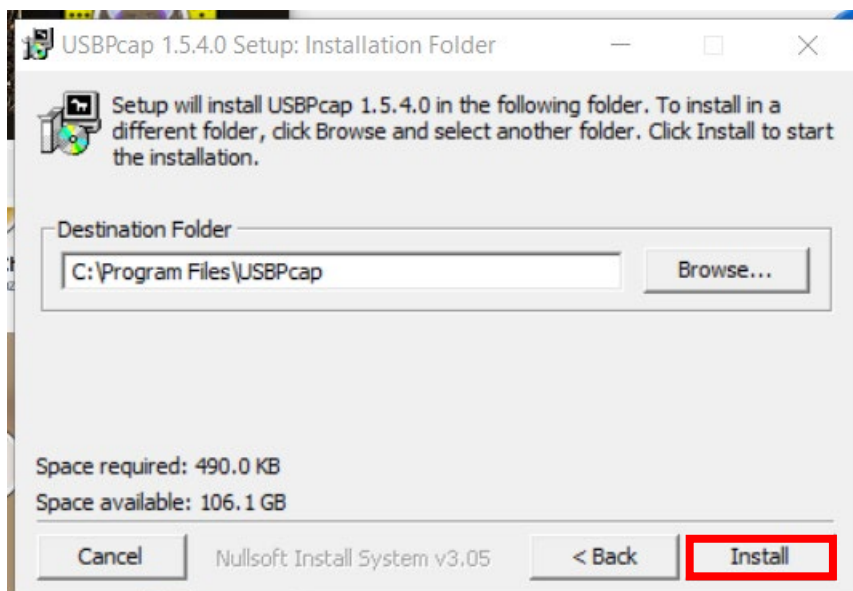
Step 15: Now, USBPcap's driver license will pop-up. Tick the box to accept the terms. Select 'Next' to go further.



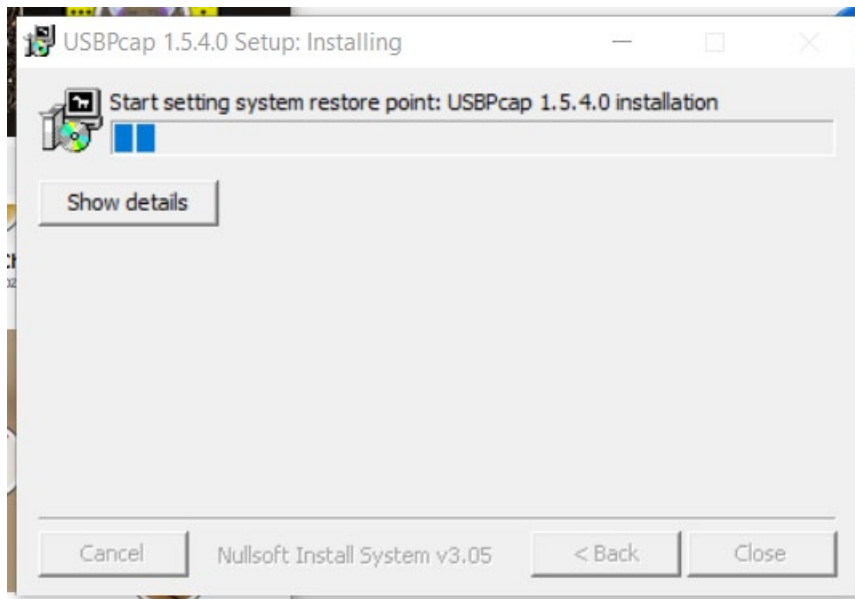
Click 'Next'.



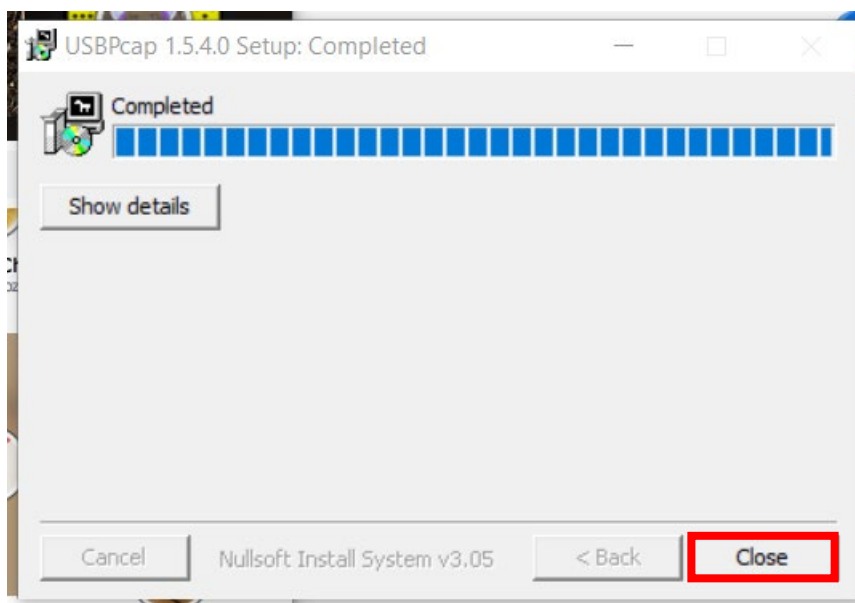
Step 16: Choose type of installation or the optional components then, select 'Next'.



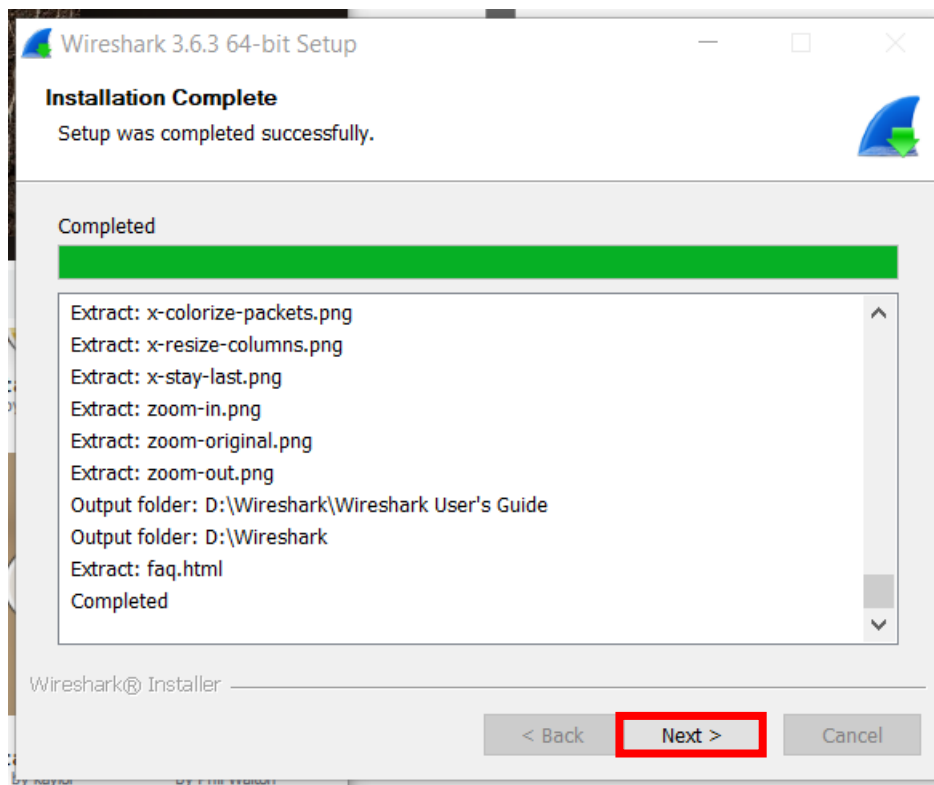
Step 17: Select preferred destination folder or leave the default and click 'Install'.



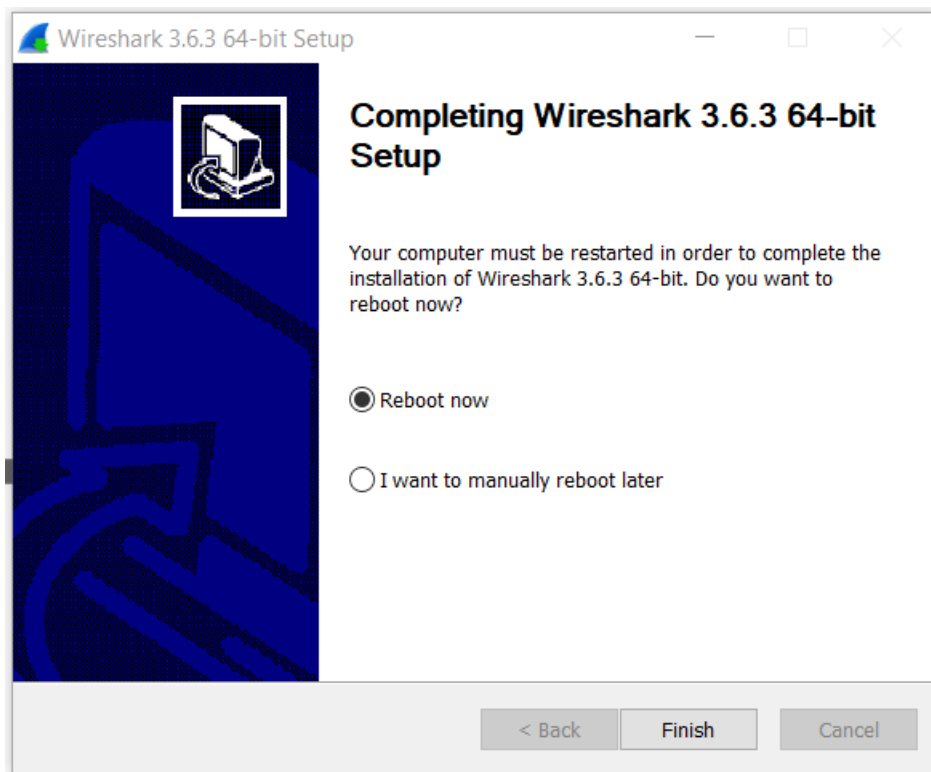
Wait for it to install



Step 18: Close the window.



Step 19: Select 'Next'.

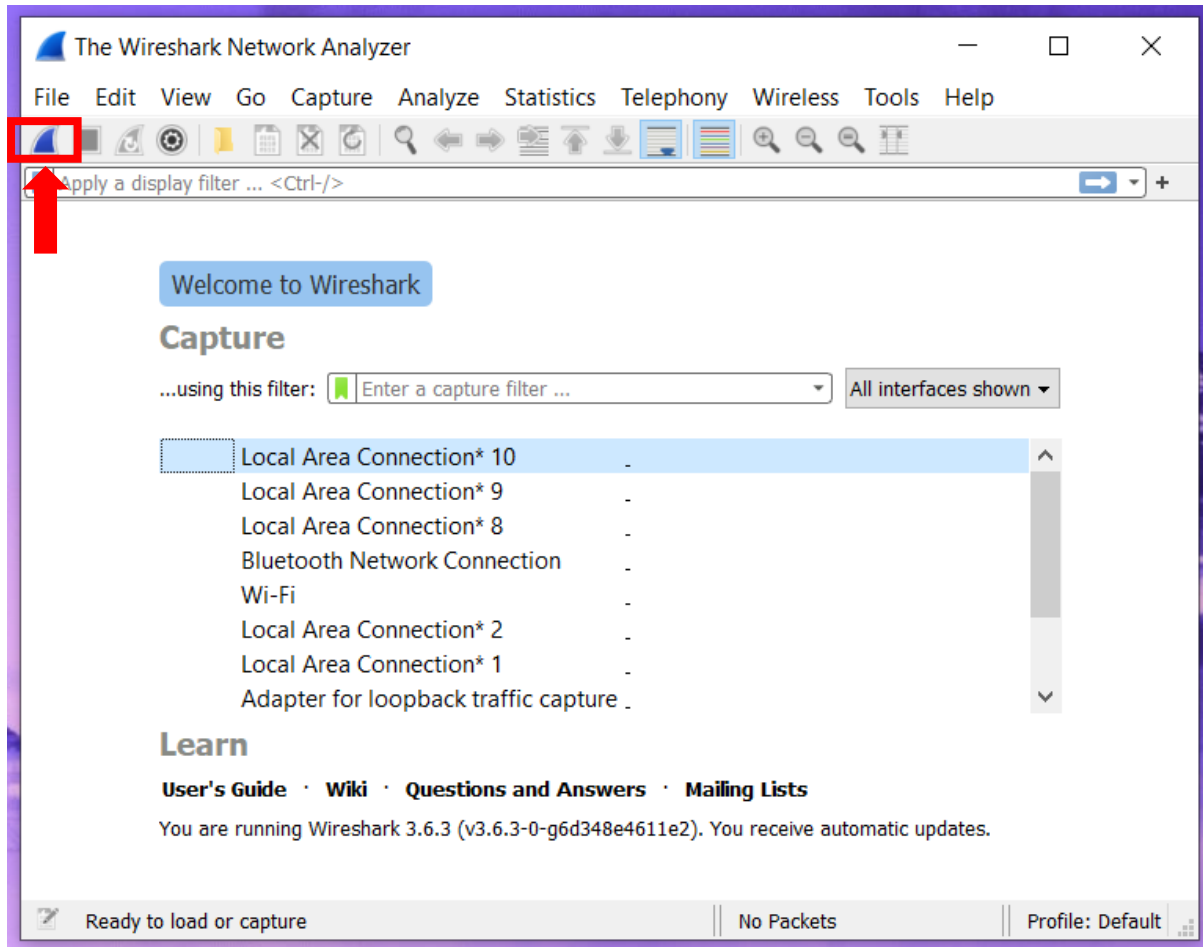


Step 20: Reboot your device after installing the application.

4.0 OUTCOME



Step 1: After device is done rebooting, open 'Wireshark'.



Step 2: It will lead to the home page. Click the 'fin' icon to start capturing packets.

Login | Personal Contacts Manager v1.0

Email*

Password*

☒ Remember me

Submit ←

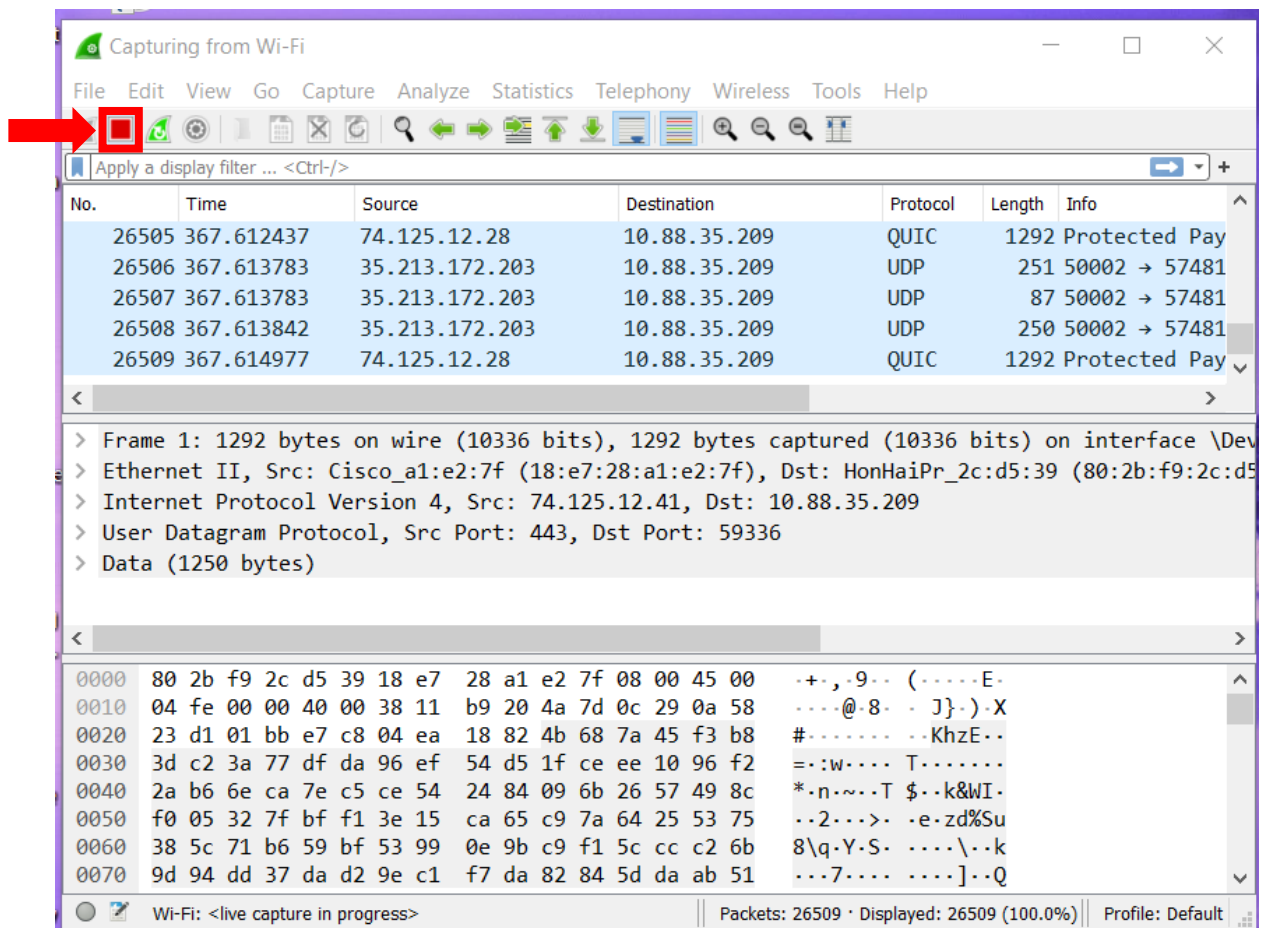
Step 3: Open web browser and type *http://www.techpanda.org/* . Enter email as admin@google.com . Enter password as Password2010. Then, click ‘Submit’.

Dashboard | Personal Contacts Manager v1.0

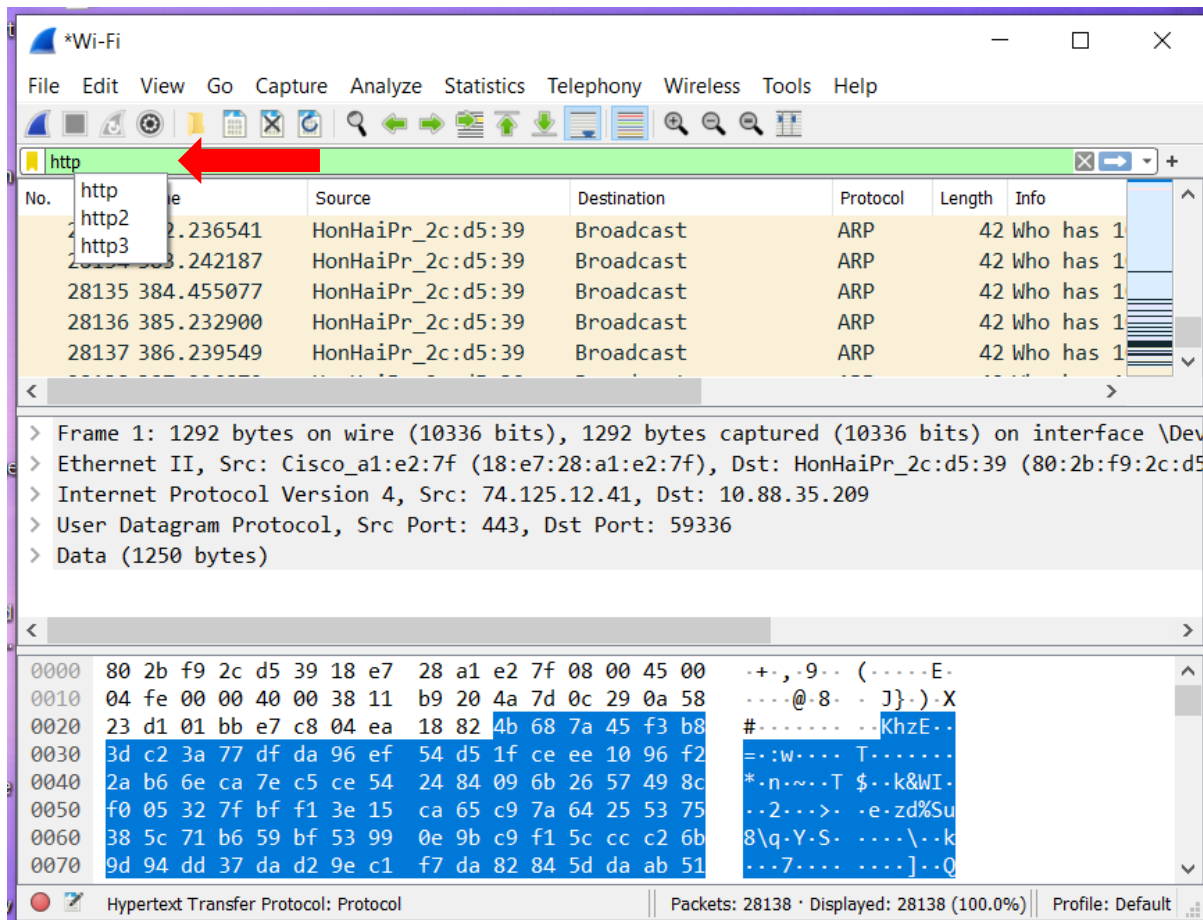
Add New Contact
Log Out

ID	First Name	Last Name	Mobile No	Email	Actions
1	mynams	jenefry	9898989898	admin@gmail.com	
37638	Zaim	Irfan	019-9087887	ko@gmail.com	Edit
37639	Zaim	Irfan	019-9087887	admin@google.com	Edit
37640	Matthew	Clark	+61407401632	thecountrywagonradioshow@gmail.com	Edit
37641	Dark	Maiden	87635444242	darkmaiden@octopus.ps	Edit
37642	Arnulfo U	Hernandez	76021565433	arnulf04140@gmail.com	Edit
37643	Zaim	Irfan	019-9087887	abc@gmail.com	Edit
37644	Click Me!	adsfdsf	ádfdsafdsaf	sdfsd@gmail.com	Edit
37645	Dark	Maiden	87635444242	darkmaiden@octopus.ps	Edit
37646	shubham	kini	1234567890	shubham.kini@avc.ac.in	Edit
37647	Sombre	Maiden8763	87635444242	darkmaiden@octopus.ps	Edit
Total Records Count: 11					

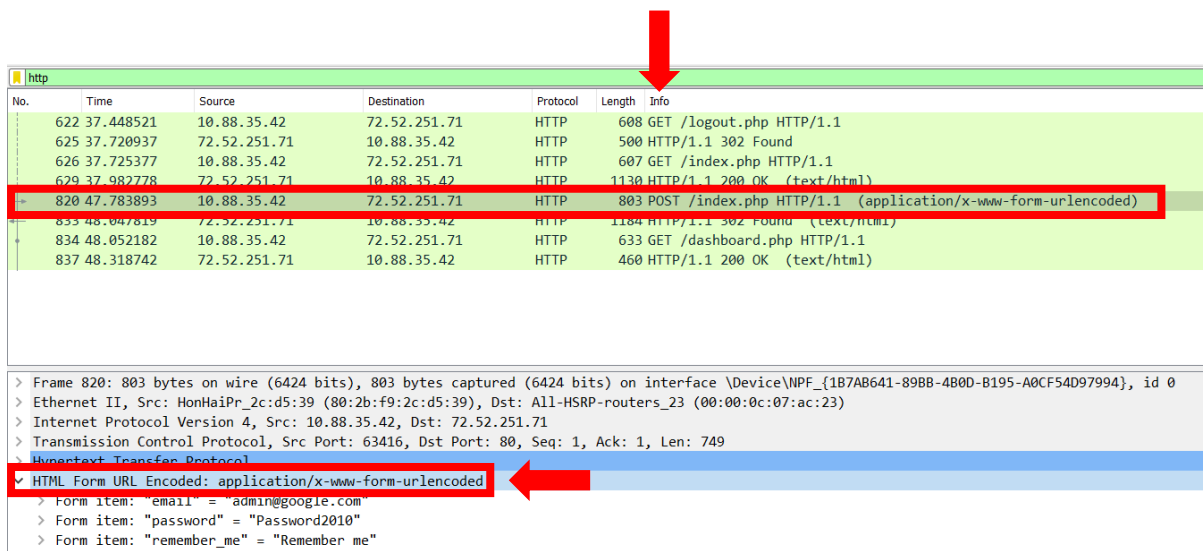
Step 4: After successfully logged in, this dashboard will appear on your screen.



Step 5: Go back to Wireshark and stop the capture.



Step 6: Type 'http' in the 'Filter' textbox. This will filter only HTTP protocol results.



Step 7: Search for POST verb under Info column. Then, click 'HTML Form URL Encoded: application/x-www-form-urlencoded'. You will be able to view plaintext values of all the POST variables submitted to the server through HTTP protocol.