

IP NATION LOCATED

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## DECLARATION

I hereby declare that this project report entitled

### IP NATION LOCATED

is written by me and is my own effort and that no part has been plagiarized  
without citations.

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## **DEDICATION**

To my beloved parents, family, and nieces...

## ACKNOWLEDGEMENTS

I would like thank Dr. Mohd. Faizal Bin Abdollah for giving assistant in completing this project successfully.

I would also like to thank my beloved parents and family who have been giving me support and motivation throughout my project.

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## ABSTRACT

This project is about the developing report of a software name IPLoc that is function as IP located that locates the IP and pin point it in Google Maps. Besides that, this system also will create a curve line of the IP of a server that connected to the location. It will also provide interface for nsLookup and PING service instead of using the command prompt to do it. IPLoc used VB.net programming language and Google Maps API for using the Google Maps tool. In the literature review chapter, five current systems have been test and analyze, the advantages and disadvantages of each of the system have been recorder. The characteristic of IPLoc have been listed from the literature review. Next, is the project methodology and milestone. For the project methodology, Waterfall Model is used, these methodology is from up to bottom. A Gantt chart has being created as the milestone of the system. The next phases is analyze, the problem and requirement for the developing of the system have been taken to account. Last but not least is the, the designing phase. The high level design and the database design have been proposed like the user interface, input and output design. Then, the implementation part where will plan how to implement IPLoc. Testing continues, in these phase we plan the system. Lastly is the conclusion where we conclude the development phase of IPLoc, weakness and strength and contribution.

## ABSTRAK

Projek ini adalah suatu permbangunan system yang bernama IPLoc yang berfungsi memberi lokasi sesuatu IP dan menanda lokasinya di Google Maps. Di samping itu, IPLoc akan membuat suatu simulasi rangkaian. Ia juga akan memberi antara muka untuk “PING” alamat IP dan melakukan ‘*nslookup*’ tanpa menggunakan prompt mengarah. IPLoc menggunakan bahasa programming VB.net dan API peta Google daripada alatan peta Google. Di dalam “*literature review*”, sebanyak lima system sedia ada di analysis untuk mengetahui kelebihan dan kekurangang sesuatu system. Ciri-ciri IPLoc juga telah di senaraikan. Kemudian, adalah *methodology* projek dan fasa pembangunan. Untuk *methodology* yang digunakan adalah dari atas ke bawah. *Gantt chart* juga telah dibuat untuk senaraikan fasa-fasa peting. Penyataan Masalah dapat memberi kita maklumat tetang kekurangan sistem sekarang. Dalam fasa reka, rekaan antara muka IPLoc dibuat juga rekaan input dan outputnya. Fasa implemasi di mana rancangan untuk menjalankan implementasi IPLoc. Fasal pengujian di teruskan untuk menguji IPLoc. Akhir sekali adalah kesimpulan IPLoc, kekurangan dan kekuatan dan juga sumbangannya

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## CHAPTER I

### INTRODUCTION

#### 1.1 Project background

The software that will be developed is named 'IP Nation Located' (IPLoc). It will be able to locate the web server from the nation and ping point it in Google maps. The software uses VB.net programming language. This software also provides UI to ping to a server based on its IP address and domain name by using user interface.

Firstly, the users need to enter the domain name to translate it to the IP address. The system will provide the IP address that is linked to the domain name entered earlier. The user may receive a list of IP addresses or just a single IP address based on the domain name entered.

Secondly, the user can pick any IP to find the location it is coming from based on the IP database. The user will enter the IP and press locate, the system will display the nation of the IP block.

Next, The IP that have located by the system, the user just need to 'Locate City' and the system will maps it location by using Google maps. Now the user will get a map location of the server for example, facebook.com as domain name the system will display the IP 69.171.224.11, and later display it location and mapped it location.

Lastly, the system will provide a simulation of the communication of host and DNS server using the Google API code. The will provide a great map simulation in the systems.

## 1.2 Problem statements

Today, it hard to know where the location of an IP unless we remember the IP address, but it a lot and hard to remember. There is no standalone application that provides IP and translates DNS into a location and maps it. Besides that, we need to user command prompt on specific code to translate DNS and Ping IP's, and make it hard to locate the DNS server. No web-based application that can be use in mobile device from any platform.

## 1.3 Objectives

- To develops software to translate IP into location.
- To develops software to do DNS translation.
- To develops a software that provide the location of the DNS server

## 1.4 Scope

The scope of the project is to create a system based on IP database that created using Microsoft Access Database that list all the IP and the Nation base on its Domain Names. The system will be created using Visual Basic (VB) programming which will have connection to the IP database. The system will integrated with the database to map the location of the nation in Google Maps. If the user input an IP that is recognized by the system then, system will map the IP location on the maps. If IP it's not recognized by the system, the system will fail to pin point the IP location on the maps.

## 1.5 Project significance

Provide a user friendly VB.Net application that intergrades' Google API to locate the location of the IP address. Besides that, providing basic network application likes PING and Nslookup. IPLoc will provide the user like Network admin the ability to locate and map the location on Google and a simple Google map simulation. This application intergraded VB.net language and Google maps API to provide a very unique IP translated. IPLoc also will provide the user with an interface to ping and do DNS Lookup

## 1.6 Expected output

In this project, the location of an IP is located and maps it in Google Maps. Providing Ping and Nslookup applications and a simple DNS simulation.



## 1.7 Conclusion

As a conclusion, the name of the system is ‘IP Nation Located and Mobile App’ (IPLoc). The software uses a VB.Net programming language. The main function of this system is to map the location of a IP on Google maps. Beside provide a networking VB application like Ping and nslookup.

The user will just need to enter the IP address and press “Locate City”. The system will provide the location name and maps it on Google. The system also provide the nslookup tool, example the user enter in the domain name and the system provide the IP address. This project will provide a simple simulation using Google Maps API that shows how a DNS server and a client communicate.

## CHAPTER II

### LITERATURE REVIEW AND PROJECT METHODOLOGY

#### 2.1 Introduction

This chapter will discuss in detail about literature review of the project. The literature review represents the method of searching and collecting conclusion from book writers or other open sources about certain topics. The domain of the project that is what the project is about. In this chapter also, the literature review is focus on the research of the current system or past system and the main keyword of the project, the word that will be used in developing IPLoc. And the last part is the Gantt chart, for the system development process.

For the next section, every project development includes discussion on the methodology that is use as the solution tree to the project. Methodology is a set of guidelines, standards and processes that is involved and followed explicitly in order to produce product software. In this study, the method is consist of the compatibility development process.

By having the proper project methodology, the project is able to be complete within the given time. For the project required section, where all the requirement such as software and hardware as well as the operating system requirement will be listed so that developer can understand all the features that are available in the requirement before proceeding to the proposed project.

Finally, the last section of the chapter discusses the project schedule and milestones. In this section, a milestone table will be attached together with this section. The milestone table listed the details of all task and activity required during the progress of the project development and conclusion section will end this chapter.

## 2.2 Literature review

For this project, the literature review analyze 5 IP located application, that is names are *IP address location*, *Geobyte*, "*What is my ip address.com*", *IP2Location*, and finally is *Seoegghead*. It advantages and disadvantages of using the system are the conclusion of which is the best current system and analyze it features and what can be use in IPLoc.

The first application is IP address location, it uses to find location by IP address. This application provides only the location of the IP address and small size map in a new window. We can get some detail of ISP information and brief information of the IP [1].

The screenshot displays the IP address location tool interface. At the top, it shows a '5 mins 200:1 Leverage' banner with a 'Sign up Now' button. Below this, a table lists various IP-related metrics:

Category	Value
My IP Address (Public, External or WAN IP Address)	115.132.181.49
My Internal IP Address (LAN or Router IP Address)	192.168.1.1
Router IP Address Testing...	1.42 14
My Hostname (DNS Lookup)	1.42 28
Proxy Server Detection	No Proxy detected or you use Non-Anonymous Proxy
My IP Location (Country, flag, Country Code)	Malaysia MY
See Malaysia	traced, tracked and located on big image!
My IP Location (Geosited City)	Ayer Keroh
See Ayer Keroh	traced, tracked and located on big image!
Language	English (United States)
Operating System	Windows NT 6.1 (Windows 7)
Browser	Chrome 19.0.1041.0
User Agent	Chrome 19.0.1041.0
Layout Engine	Webkit
Engine Version	535.21

Below the table, there is a section for 'My IP Location' with a map and a 'See Ayer Keroh' link. To the right, there is a 'Powered by' section with a logo and a 'Powered by' link. At the bottom, there is a 'View Log' link and a 'Powered by' link.

Additional information visible in the screenshot includes:

- Location for your site: January 19, 2011
- Web: Link from Ayer Keroh, Malaysia
- Your Country Code: MY
- Your IP State: Melaka
- Your IP Address: 115.132.181.49
- Your Hostname: 115.132.181.49
- Your ISP: Telekom Malaysia Berhad
- Your Organization: Telekom Malaysia Berhad
- Powered by: IP Address Location

There are also several news snippets on the right side of the page, such as 'January 19, 2011 Who is IP', 'We have updated our IP tool and dropped old one', and 'November 26, 2009 IP Range'.

Figure 2.1 IP address location

The second application review is Geobyte, it provides very detail information of IP but sadly provide a wrong location. It must be Malacca not Penang. The system also doesn't provide any ISP information. In addition, this application doesn't provide a map. But it provides localization information like currency, location, and also life expectation of male and female in Malaysia. The diagram below show an IP that is located in Malacca, but the result showing a location in Penang [2].

**IP Address to locate:**

Did you know that you can get some Mapbytes for free by linking to us - [click here](#) for details. It is like having having all of your local services bookmarked, but easier to access.

Link to these results: <http://www.geobytes.com/IpLocator.htm?GetLocation&IpAddress=115.132.181.49>

Country Code	MY	Country	Malaysia	<b>Distance to Nearby Cities</b> km, mi, City, Region, Country
Region Code	MYPG	Region	Pulau Pinang	
City Code	MYPGPENA	City	Penang	
CityId	6544	Certainty	66	
Latitude	5.4170	Longitude	100.3330	
Capital City	Kuala Lumpur	TimeZone	+08:00	
Nationality Singular	Malaysian	Population	22229040	
Nationality Plural	Malaysians	Is proxy	false	
CIA Map Reference	Southeast Asia	Currency	Malaysian Ringgit	
MapBytes Remaining	Free	Currency Code	MYR	
Life Expectancy	73.6	Life Expectancy (Male/Female)	70.8/76.5	

0 0 Penang, PG, MY  
0 0 George Town, PG, MY  
6 3 Prai, PG, MY  
7 4 Butterworth, PG, MY  
16 10 Bayan Lepas, PG, MY  
26 16 Kulim, KH, MY  
31 19 Sungai Petani, KH, MY

Search WHOIS data at: [RIPE](#) [ARIN](#) [APNIC](#) [LACNIC](#) [AfrinIC](#)

Flag 

Check out Geobytes other products including: [GeoSelect](#), [GeoNetMap](#), [GeoReport](#), [GeoPhrase](#), [GeoLyzer](#), [GeoRemote](#), [GeoDirection](#), [MapBytes](#)

[Click here](#) to find out why our data can differ from the WHOIS data.  
[Click here](#) for a description of each of the above fields.

Remember that if you use [shared hosting](#) you're website's IP address maybe shared with other sites located on that server.

**Figure 2.2** IP address Geobyte

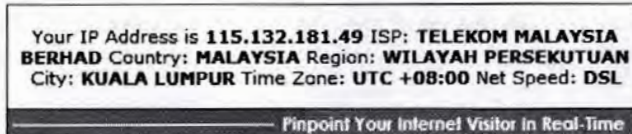
Next, is the application “What is my ip address.com”, this application provide a very detail location, a ISP information and also a Google Maps, not like the past two reviews. Diagram 2.3 is an example on how the system ping the IP and display the result [3].



Figure 2.3 What is my ip address.com

Then, is IP2Location application that provides more a service that an application. It also doesn't map the location. Diagram 2.4 is an example on how the system pings the IP and display the result in a box. This system is quite accrued [4].

#### Information Box (Frame: 400x80) Horizontal HTML



```
<iframe src="http://tools.ip2location.com/ib1" width="404" height="86" marginwidth="1" scrolling="no" frameborder="0"></iframe>
```

#### Information Box (Frame: 200x160) Square HTML



```
<iframe src="http://tools.ip2location.com/ib2" width="204" height="162" marginwidth="1" scrolling="no" frameborder="0"></iframe>
```

#### Information Box (PNG 400x80) Horizontal Image



```
<a href="http://www.ip2location.com" target="_blank"></a>
```

Figure 2.4 IP2Location

Lastly, is an application Seoegghead, this application provides just a simple location. This shows the application is simple, just provide the location, but although fail to display the of wrong IP location that must be Malacca not Kuala Lumpur. Diagram 2.5 is an example on how the system ping the IP displays it [5].



### Where is that IP Located (Geolocation Tool)

This little geolocation tool lets you view the approximate location (via published geolocation databases) of a visitor of your web site — or, in general, any IP address.

Unanticipated foreign traffic may be an indication of fraud and/or other nefarious activities.

IP address:

IP address	City	State	Zip	Country
115.132.181.49	Kuala Lumpur	Kuala Lumpur	NA	Malaysia

**Figure 2.5** Seoegghead

As conclusion, this literature review 5 application, all of it is web based application. The most powerful application that is founds is “What is my ip address.com”, because it provides us with the correct IP location and a maps of Melaka. It also provides ISP information and also the maps that use a Google Map API.

In addition, the system IPLoc will be developed are base on this literature review, this application help the network administration to detect the IP location and locate it on Google maps. Besides, this system also provides UI for nslookup and ping.