



ARM Based Microcontroller

IOT

Lecture 18



Advanced RISC Machines

Introduction

01



Internet of things



IOT

Smart devices can open your eyes to a wealth of new and actionable operational data. Boost your ability to make decisions quickly—right on your factory floor. Check Products. View Events. Browse Case Studies. Highlights: Customer Care Available, Case Studies Available.

The Internet of things (IoT) is the network of everyday objects – physical things embedded with electronics, software, sensors, and connectivity enabling data exchange.

Basically, a little networked computer is attached to a thing, allowing information exchange to and from that thing.

IOT

Be it light bulbs, toasters, refrigerators, flower pots, watches, fans, planes, trains, automobiles, or anything else around you, a little networked computer can be combined with it to accept input (especially object control) or to gather and generate informational output (typically object status or other sensory data).

This means computers will be permeating everything around us – ubiquitous embedded computing devices, uniquely identifiable, interconnected across the Internet.

Because of low-cost, networkable microcontroller modules, the Internet of things is really starting to take off.

Connect to a server

02

Internet of things

Web Host

In the previous lecture we have learned how to make a simple local web page using Html and PHP.

Now we need to upload our webpage to a server to allow us to control our IoT project Over the world.

we can buy our server but in our course we will use a free server.

The Free Web Hosting Area.com is a free hosting web site allow us to get a hostname for our local webpage to upload it into a server .

[“https://www.freewebhostingarea.com/”](https://www.freewebhostingarea.com/)



Get a hostname

1- got to "<https://www.freewebhostingarea.com/>" and then got to Free Subdomain Hosting
And choose your hostname of your local webpage.

Free SubDomain Hosting

www. . Select Free Subdomain ▼ PROCEED

i.e. yourname

2- Write your hostname and the select a free subdomain.

Free SubDomain Hosting

www. . Select Free Subdomain ▼ PROCEED

i.e. yourname

Free Domain Hosting (for already registered domains)

NEW - Starting with 13.08.2018, ALL domain extensions are available including the new, long TLDs

- Select Free Subdomain
- Select Free Subdomain
- ueuo.com
- eu5.org
- noads.biz
- freevar.com**
- freetzi.com

Get a hostname

3- Click to proceed

Free SubDomain Hosting



www. .

i.e. yourname

Get a hostname

4- Then enter your email and password for your new hosting

imt.freevar.com is available on **Newserv.freewha.com** server.

>> Account Information

E-mail:

You need a valid email address to confirm your account.

Password:

Re-type password:

Password must have minimum 6 characters including letters and numbers.
Do not use special characters or spaces.

☒ I have read the [Service Agreement](#) and agree to its terms.

CREATE

Get a hostname

5- Now your new free hosting have been created and this information you will need while uploading your local webpage into a server.

Your Personal FTP Information

FTP Server/Host: imt.freevar.com

FTP Login/Username: imt.freevar.com

FTP PassWord: 123456789

6- Go to <http://imt.freevar.com/ftp/> and login with these information.

Your Personal FTP Information

FTP Server/Host: imt.freevar.com

FTP Login/Username: imt.freevar.com

FTP PassWord: 123456789

To upload your files, you may use free ftp programs like Filezilla, Cyberduck or WinSCP.

Or you may try our **Web based FTP client**, located at <http://imt.freevar.com/ftp/>.

Once logged in, you will be able to create a new dir, new file, to upload a zip archive and hav files, to select files and download them as .zip, to copy, move, delete, rename, chmod (chang your account, ability to see and edit dot files like .htaccess. With a normal ftp program you w list of features see <http://imt.freevar.com/ftp/help.html>.

FTP server

Username

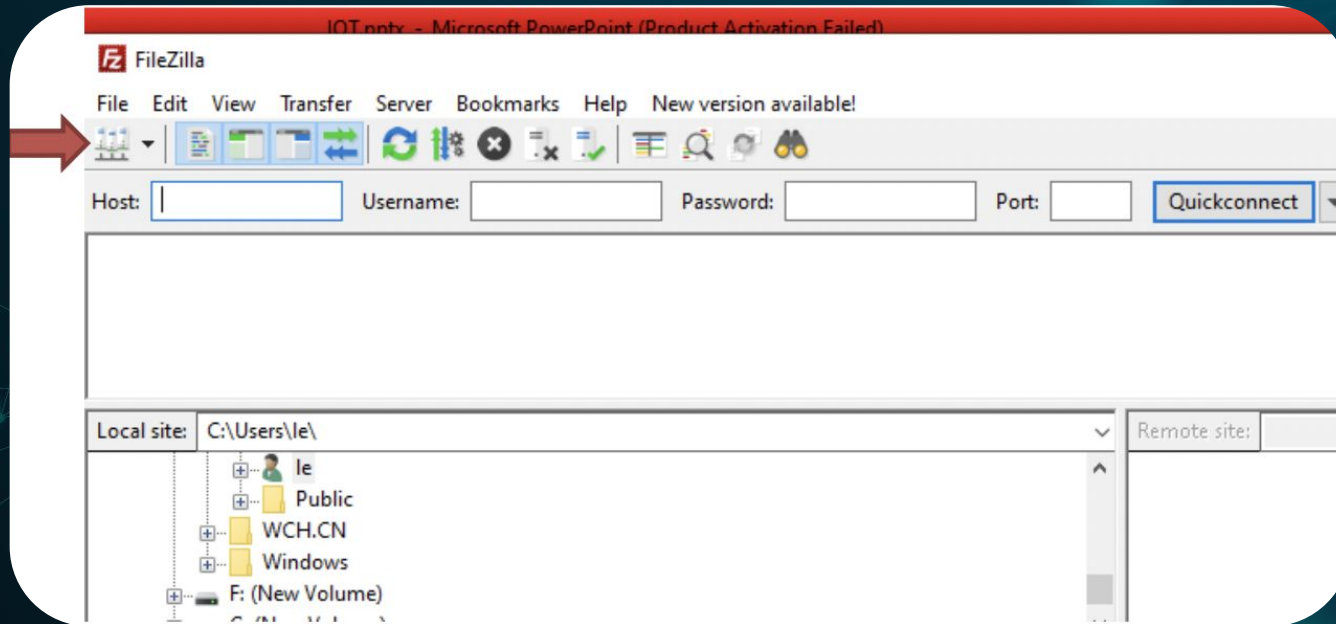
Password

Login

Connect with server

7- Now your free server has been created with name www.imt.freevar.com now we need to connect our local webpage to the server to make this step we need to download and install a FileZilla.

8- Click Here to Open the site manager



Connect with server

9- Add New Site

Site Manager

Select entry:

- My Sites
 - ygrab3

New site New folder
New Bookmark Rename
Delete Duplicate

General Advanced Transfer Settings Charset

Protocol: FTP - File Transfer Protocol

Host: Port:

Encryption: Use explicit FTP over TLS if available

Logon Type: Normal

User: Password:

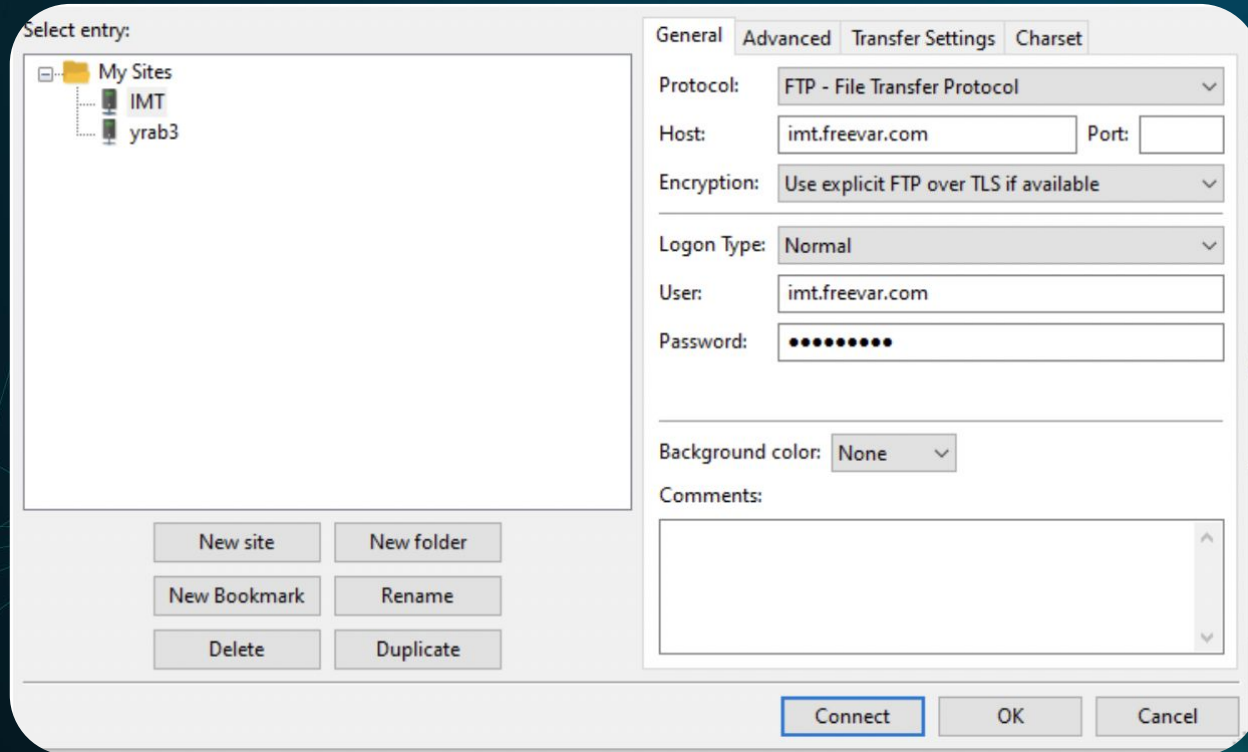
Background color: None

Comments:

Connect OK Cancel

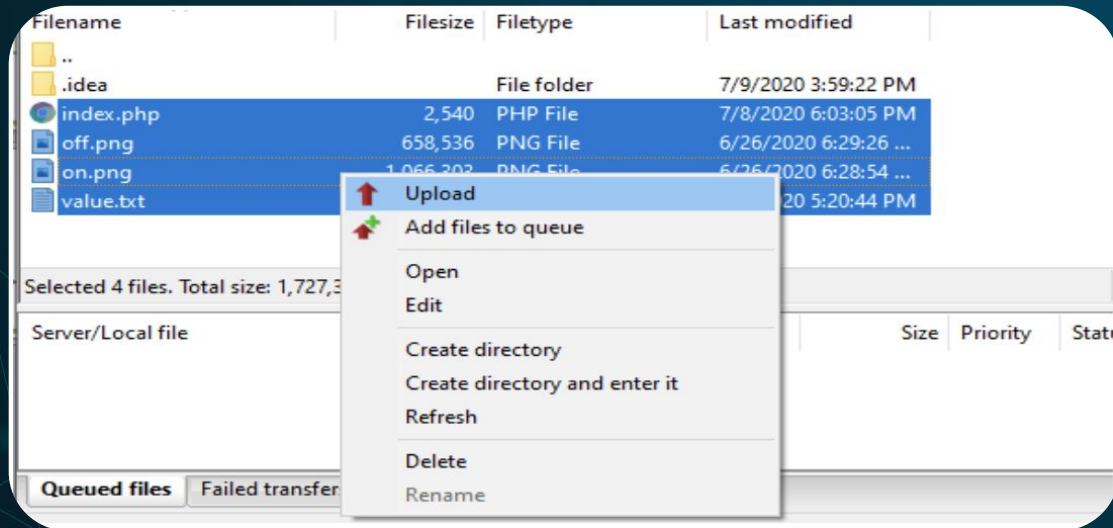
Connect with server

10- Name Your New Site and enter your information you got it from Free Web Hosting and then press connect.

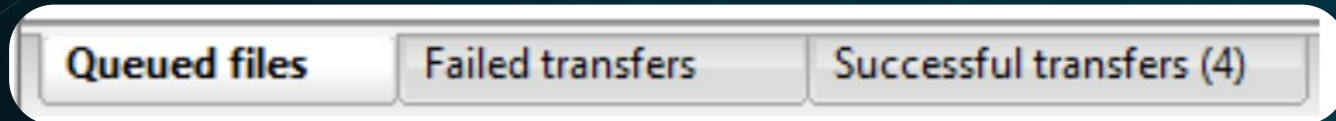


Files Upload

11- After Connection Go to your local webpage files into your computer and then select them all and click right into the mouse and then choose upload.

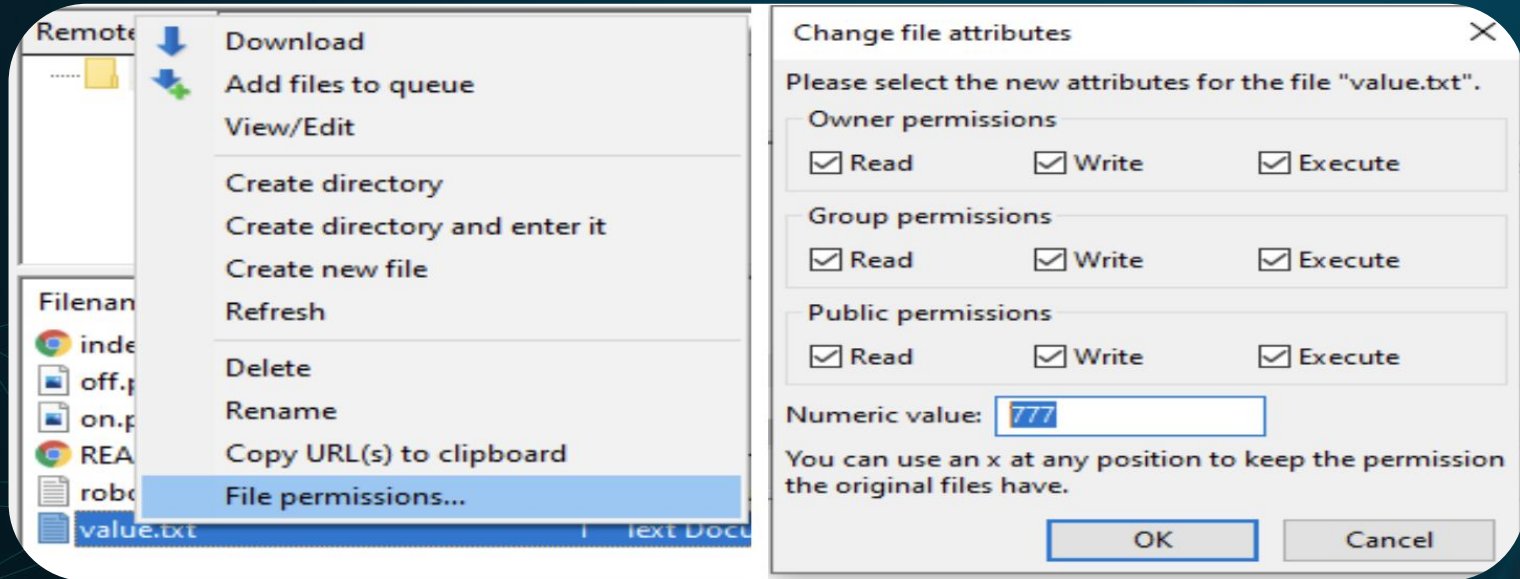


12- be sure that all transfer of your files is done .



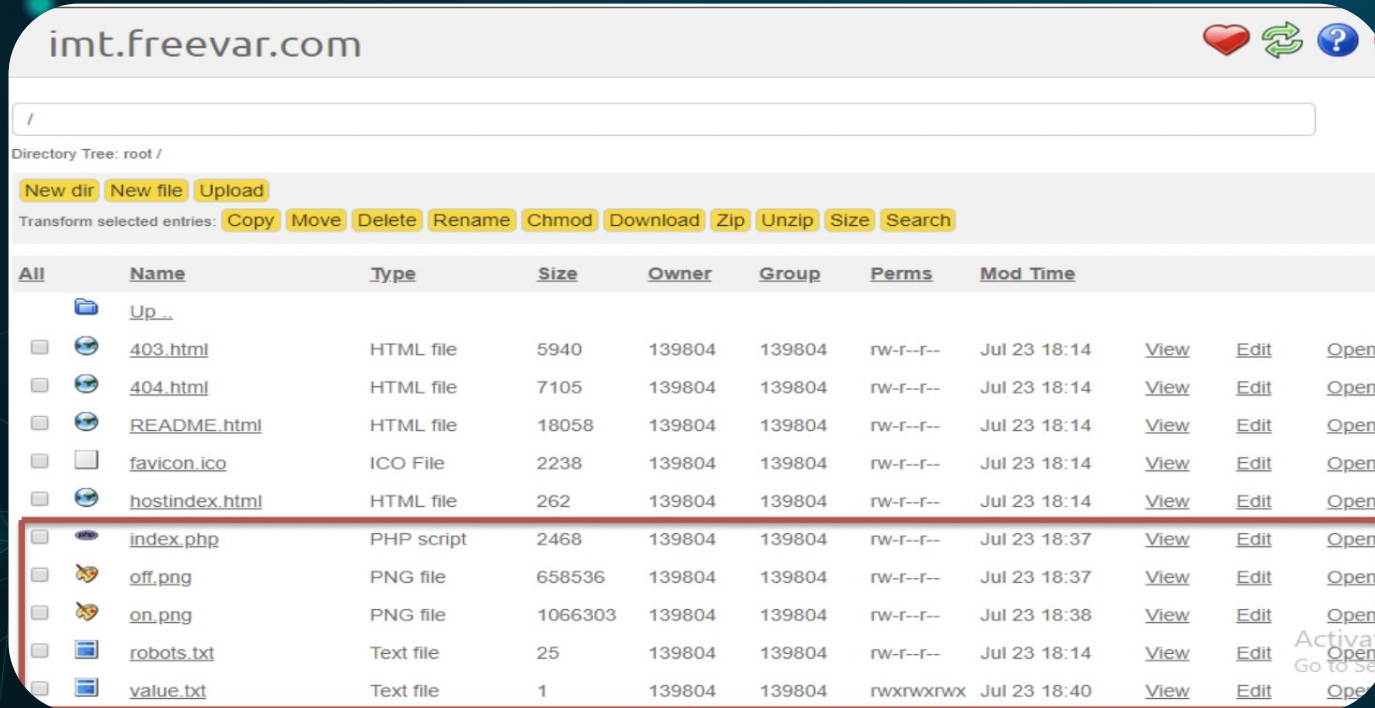
Files Permissions

13- Go to value.txt in Remote Site and click right on it and choose file permission then enter 777.



Connection Check

14- Go to your site <http://imt.freevar.com/ftp/> and be sure that your local webpage files have been uploaded into your server



The screenshot shows the FTP interface for imt.freevar.com. The directory tree is rooted at /, and the current view shows a list of files and directories. The files listed are:

All	Name	Type	Size	Owner	Group	Perms	Mod Time			
	Up..									
<input type="checkbox"/>	403.html	HTML file	5940	139804	139804	rw-r--r--	Jul 23 18:14	View	Edit	Open
<input type="checkbox"/>	404.html	HTML file	7105	139804	139804	rw-r--r--	Jul 23 18:14	View	Edit	Open
<input type="checkbox"/>	README.html	HTML file	18058	139804	139804	rw-r--r--	Jul 23 18:14	View	Edit	Open
<input type="checkbox"/>	favicon.ico	ICO File	2238	139804	139804	rw-r--r--	Jul 23 18:14	View	Edit	Open
<input type="checkbox"/>	hostindex.html	HTML file	262	139804	139804	rw-r--r--	Jul 23 18:14	View	Edit	Open
<input type="checkbox"/>	index.php	PHP script	2468	139804	139804	rw-r--r--	Jul 23 18:37	View	Edit	Open
<input type="checkbox"/>	off.png	PNG file	658536	139804	139804	rw-r--r--	Jul 23 18:37	View	Edit	Open
<input type="checkbox"/>	on.png	PNG file	1066303	139804	139804	rw-r--r--	Jul 23 18:38	View	Edit	Open
<input type="checkbox"/>	robots.txt	Text file	25	139804	139804	rw-r--r--	Jul 23 18:14	View	Edit	Open
<input type="checkbox"/>	value.txt	Text file	1	139804	139804	rw-rw-rw-	Jul 23 18:40	View	Edit	Open

Try your Web Application

15- Now search about your webpage into Google <http://imt.freevar.com> and you will find it.



← → ↻  <http://imt.freevar.com>

16- Finally



☐ On
☒ Off



IP Address

17- The last thing is to get the IP address of you website. Go to <https://www.site24x7.com/find-ip-address-of-web-site.html> and then enter you hostname of your website "imt.freevar.com" .

Test results : - imt.freevar.com

New Test

Result URL: imt.freevar.com

Load Time: 1 sec(s)

Tested on: 23 Jul 2020 06:01:26 PM

Check Website Availability | Ping Website | DNS Analysis | Find IP | Find Location

Find IP Results: 23 Jul 2020 06:01:26 PM

S. No.	Domain Name	IP Address
1	imt.freevar.com	mt.freevar.com /162.253.155.226



STM32
Is AWESOME

Session LAb

Create your own
IOT Application

*Time To
Code*



THANKS!

Do you have any questions?

www.imtschool.com

www.facebook.com/imaketechnologyschool/

This material is developed by IMTSchool for educational use only

All copyrights are reserved