

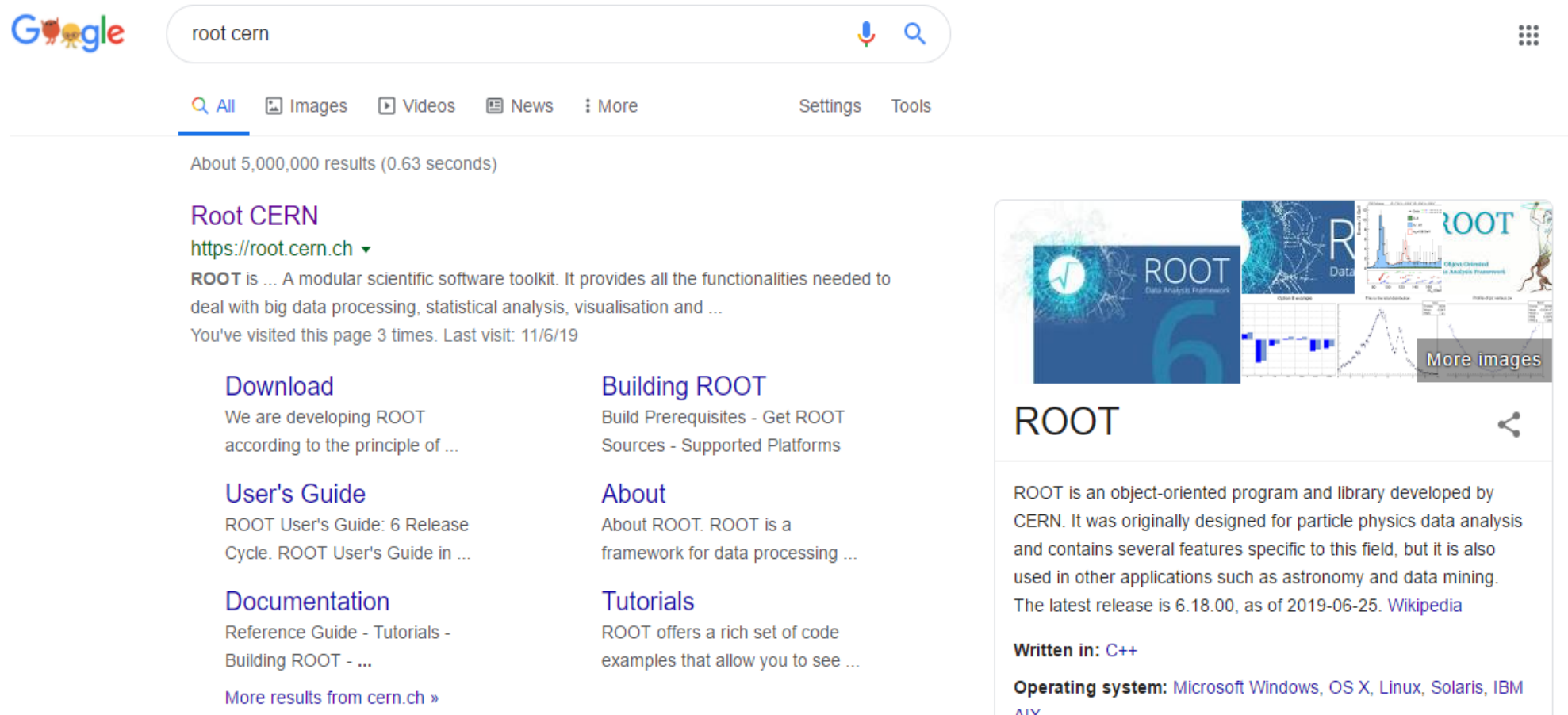
# Muhammad Farooq

## (Experimental High Energy Physics)

Installation of Data Analysis Software  
(ROOT CERN)

# ROOT CERN

- First, we have to download the ROOT software .exe file for windows from the web link of ROOT CERN site.
- First open any browser and write root cern and press enter. Its open a window.



The screenshot shows a Google search interface with the query 'root cern'. The search results page displays 'About 5,000,000 results (0.63 seconds)'. The top result is for 'Root CERN' with the URL 'https://root.cern.ch'. The description states: 'ROOT is ... A modular scientific software toolkit. It provides all the functionalities needed to deal with big data processing, statistical analysis, visualisation and ...'. It also notes 'You've visited this page 3 times. Last visit: 11/6/19'. Below the description are links for 'Download', 'Building ROOT', 'User's Guide', 'About', 'Documentation', and 'Tutorials'. To the right of the search results is a large image of the ROOT logo and a collage of data plots, with the text 'ROOT' and 'More images' below it.

Google

root cern

All Images Videos News More Settings Tools

About 5,000,000 results (0.63 seconds)

**Root CERN**  
<https://root.cern.ch> ▼

**ROOT** is ... A modular scientific software toolkit. It provides all the functionalities needed to deal with big data processing, statistical analysis, visualisation and ...

You've visited this page 3 times. Last visit: 11/6/19

**Download**  
We are developing ROOT according to the principle of ...

**Building ROOT**  
Build Prerequisites - Get ROOT Sources - Supported Platforms

**User's Guide**  
ROOT User's Guide: 6 Release Cycle. ROOT User's Guide in ...

**About**  
About ROOT. ROOT is a framework for data processing ...

**Documentation**  
Reference Guide - Tutorials - Building ROOT - ...

**Tutorials**  
ROOT offers a rich set of code examples that allow you to see ...

[More results from cern.ch »](#)

**ROOT**

ROOT is an object-oriented program and library developed by CERN. It was originally designed for particle physics data analysis and contains several features specific to this field, but it is also used in other applications such as astronomy and data mining. The latest release is 6.18.00, as of 2019-06-25. [Wikipedia](#)

**Written in:** C++

**Operating system:** Microsoft Windows, OS X, Linux, Solaris, IBM AIX

# ROOT CERN

- Link for root cern site (<https://root.cern.ch/>)
- To see the releases open link (<https://root.cern.ch/releases>). And scroll down the windows and see the release of version 5 which is suitable for your windows platform.

## Version 5

Release 5.34/38 - 2018-03-12

Release 5.34/36 - 2016-04-05

Release 5.34/34 - 2015-10-02

Release 5.34/32 - 2015-06-23

Release 5.34/30 - 2015-04-23

Release 5.34/28 - 2015-03-24

Release 5.34/26 - 2015-02-20

Release 5.34/25 - 2015-01-12

Release 5.34/24 - 2014-12-02

Release 5.34/23 - 2014-11-07

Release 5.34/22 - 2014-10-10

Release 5.34/21 - 2014-09-09

Release 5.34/20 - 2014-08-13

Release 5.34/19 - 2014-07-09

Release 5.34/18 - 2014-03-14

Release 5.34/17 - 2014-02-24

Release 5.34/14 - 2013-12-16

Release 5.27/04 - 2010-06-30

Release 5.27/02 - 2010-04-27

Release 5.26/00c - 2010-07-23

Release 5.26/00b - 2010-02-11

Release 5.26/00a - 2010-01-19

Release 5.26/00 - 2009-12-14

Release 5.25/04 - 2009-11-24

Release 5.25/02 - 2009-10-01

Release 5.24/00b - 2009-10-11

Release 5.24/00 - 2009-06-30

Release 5.23/04 - 2009-04-23

Release 5.23/02 - 2009-02-26

Release 5.22/00j - 2010-04-23

Release 5.22/00i - 2010-03-31

Release 5.22/00h - 2010-02-11

Release 5.22/00g - 2010-01-25

Release 5.22/00f - 2009-12-07

# ROOT CERN

- Now open this release which is suitable for your windows platform.

<https://root.cern.ch/content/release-53436>

- And after open this link you see like this:

- Then scroll down this Windows.

The screenshot shows the ROOT CERN website for Release 5.34/36 - 2016-04-05. The page has a navigation bar with links: Download, Documentation, News, Support, About, Development, and Contribute. Below the navigation bar is a 'Home' link. The main heading is 'Release 5.34/36 - 2016-04-05'. Underneath is a 'Highlights' section with the text 'Bug fix release.' followed by a 'Release Notes' section. The release notes state that the release notes can be found [here](#) and list a fixed/completed list of JIRA tickets. The list includes tickets [ROOT-3234] through [ROOT-7766].

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Home

## Release 5.34/36 - 2016-04-05

### Highlights

Bug fix release.

### Release Notes

The release notes for this release can be found [here](#). The fixed/completed list of JIRA tickets are:

- [\[ROOT-3234\]](#) - make install fails when configured with afs
- [\[ROOT-4352\]](#) - Some compilation errors in /net/auth/src/TAFS.cxx
- [\[ROOT-4399\]](#) - TString::Tokenize() with subsequent delimiters
- [\[ROOT-6923\]](#) - Memory leak with circular TTree
- [\[ROOT-7689\]](#) - Crash in TGaxis::PaintAxis() in certain cases when using time format
- [\[ROOT-7693\]](#) - configure builds libSQLite, but TSQLServer needs libRSQLite.
- [\[ROOT-7703\]](#) - TNetXNGFileStager::Locate does not give same answer as TXNetFileStager::Locate
- [\[ROOT-7742\]](#) - a bug in thisroot.sh (ROOT env setup) for bash
- [\[ROOT-7756\]](#) - AliEve (based on TEveManager) crashes on El Capitan
- [\[ROOT-7758\]](#) - Configuration of 32 bit build is wrong on 64 bit systems
- [\[ROOT-7766\]](#) - SetTimeDisplay is set to false when SetLogv is enabled

st...

# ROOT CERN

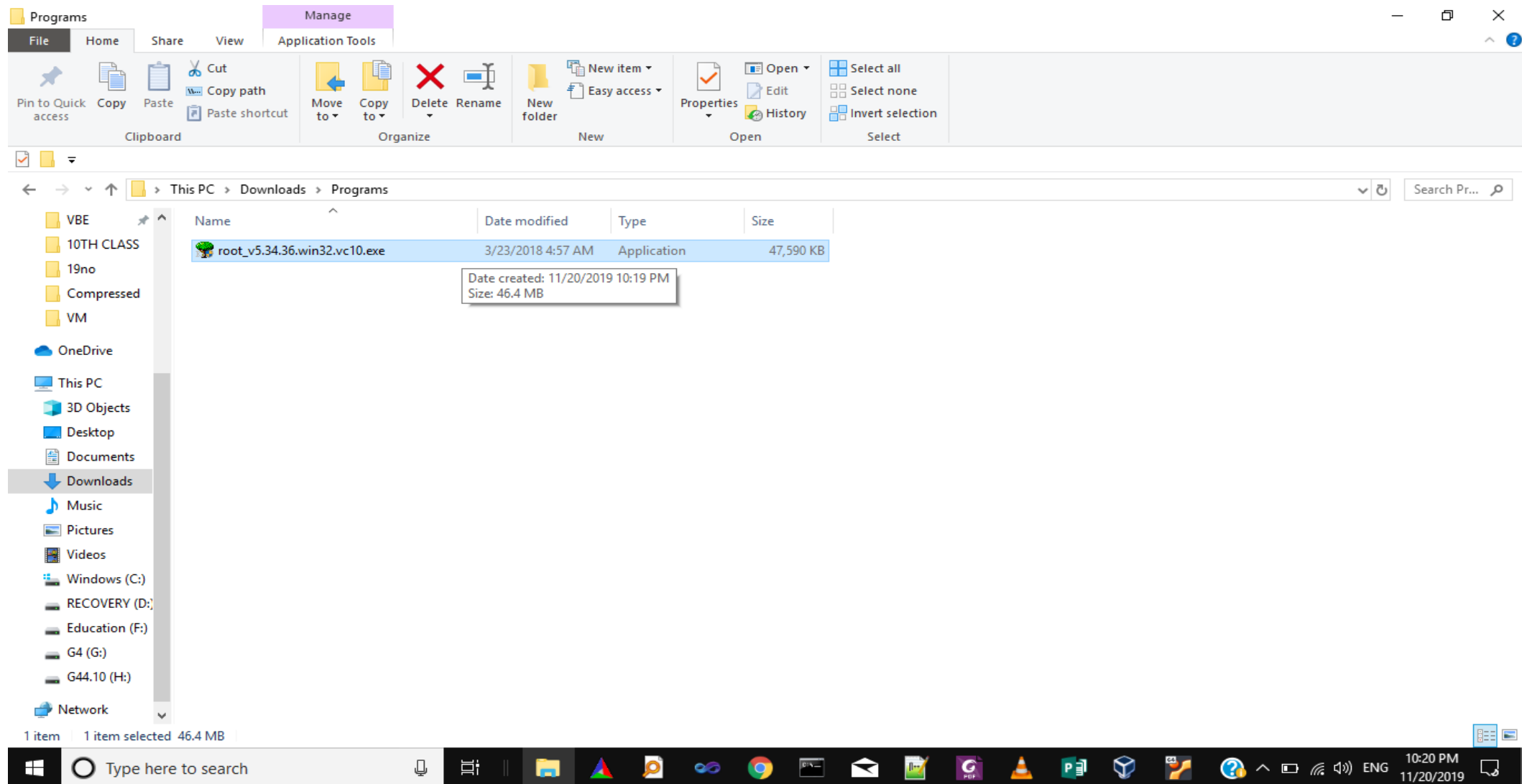
- Now open this link to download the release of version 5:

[https://root.cern.ch/download/root\\_v5.34.36.win32.vc10.exe](https://root.cern.ch/download/root_v5.34.36.win32.vc10.exe)

Ubuntu 12 gcc4.6	<a href="#">root_v5.34.36.Linux-ubuntu12-x86_64-gcc4.6.tar.gz</a>	58M
Ubuntu 14 gcc4.8	<a href="#">root_v5.34.36.Linux-ubuntu14-x86_64-gcc4.8.tar.gz</a>	62M
OsX 10.9 clang60	<a href="#">root_v5.34.36.macosx64-10.9-clang60.dmg</a>	56M
OsX 10.9 clang60	<a href="#">root_v5.34.36.macosx64-10.9-clang60.tar.gz</a>	56M
OsX 10.10 clang70	<a href="#">root_v5.34.36.macosx64-10.10-clang70.dmg</a>	57M
OsX 10.10 clang70	<a href="#">root_v5.34.36.macosx64-10.10-clang70.tar.gz</a>	56M
OsX 10.11 clang70	<a href="#">root_v5.34.36.macosx64-10.11-clang70.dmg</a>	58M
OsX 10.11 clang70	<a href="#">root_v5.34.36.macosx64-10.11-clang70.tar.gz</a>	58M
Windows Visual Studio 2010 (dbg)	<a href="#">root_v5.34.36.win32.vc10.debug.exe</a>	92M
Windows Visual Studio 2010 (dbg)	<a href="#">root_v5.34.36.win32.vc10.debug.zip</a>	140M
Windows Visual Studio 2010	<a href="#">root_v5.34.36.win32.vc10.exe</a>	46M
Windows Visual Studio 2010	<a href="#">root_v5.34.36.win32.vc10.zip</a>	67M

# ROOT CERN

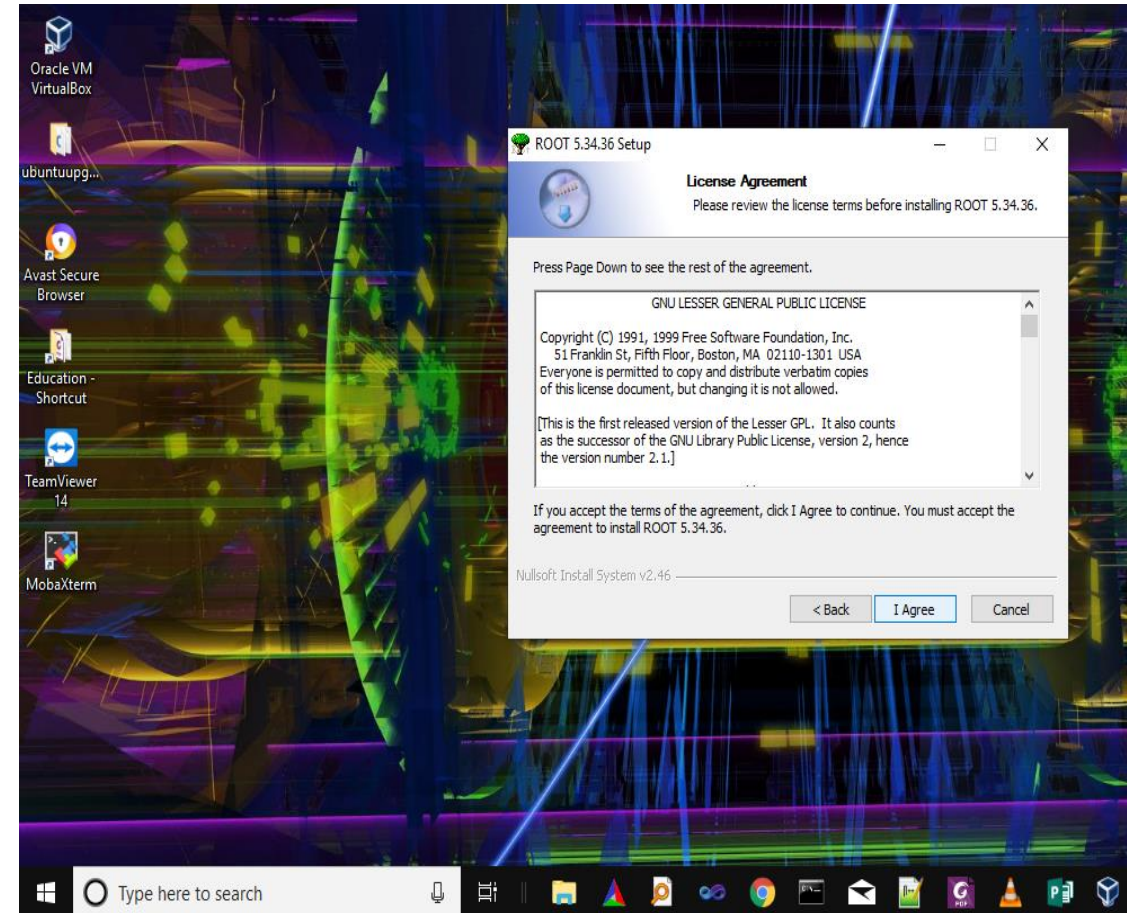
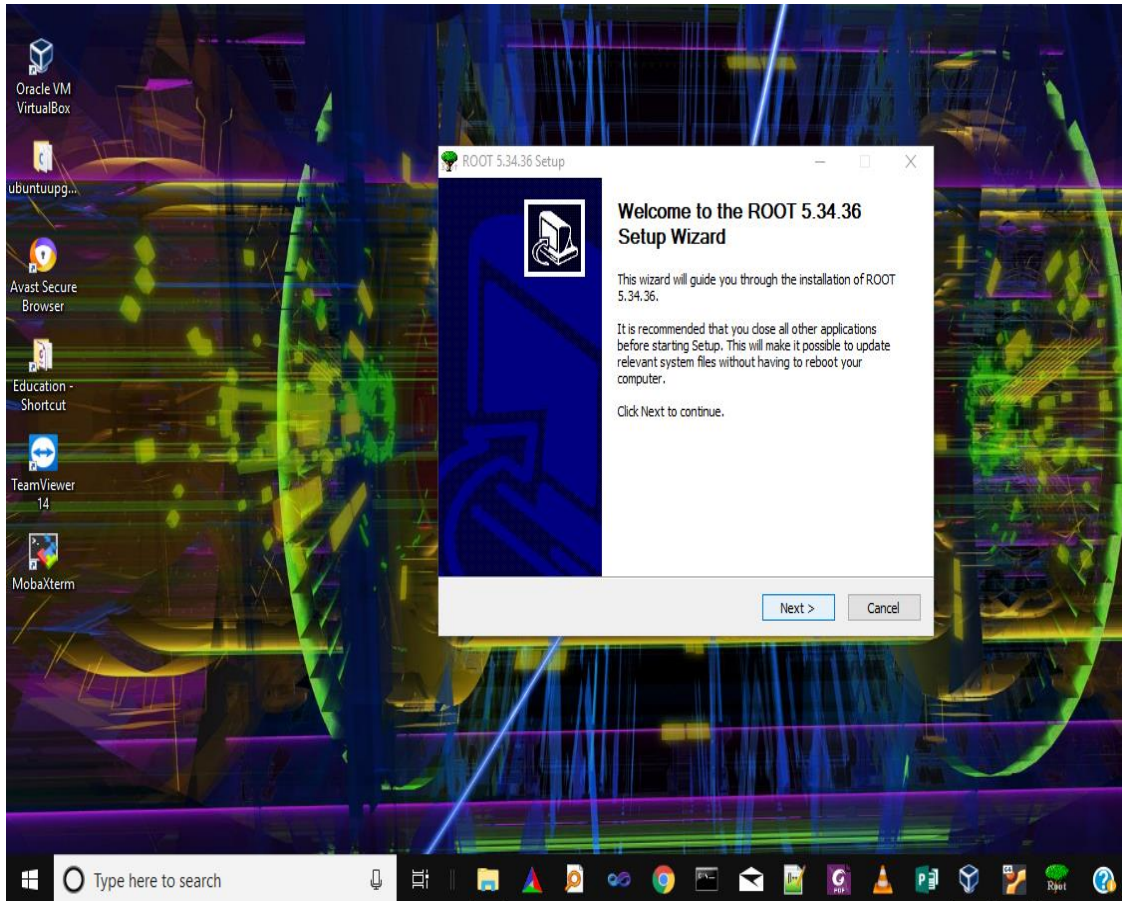
- After downloading this root cern install this:





# ROOT CERN

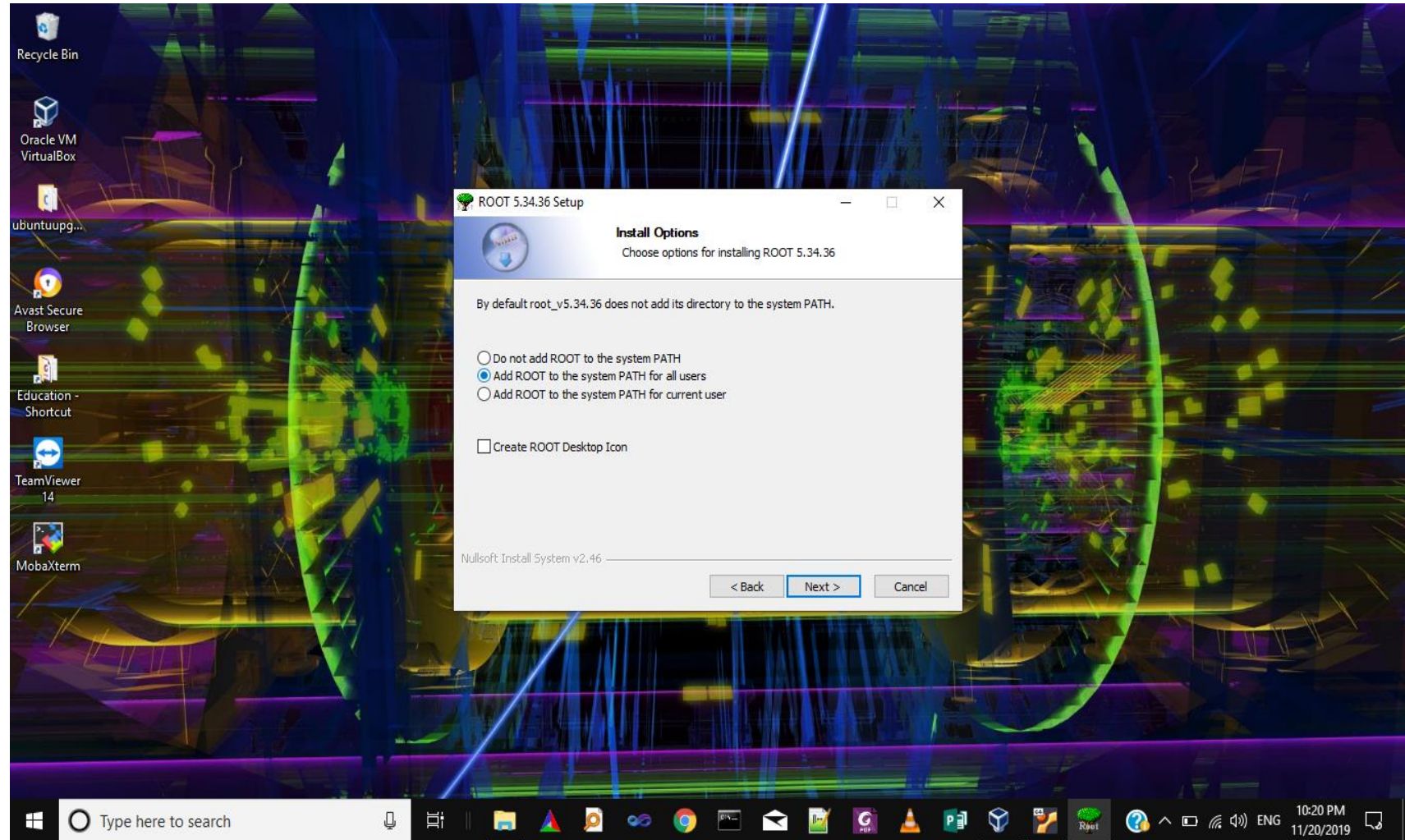
- After downloading double click on this file. Its open like a window and click on Next:
- Now agree the license:





# Installation Root Cern

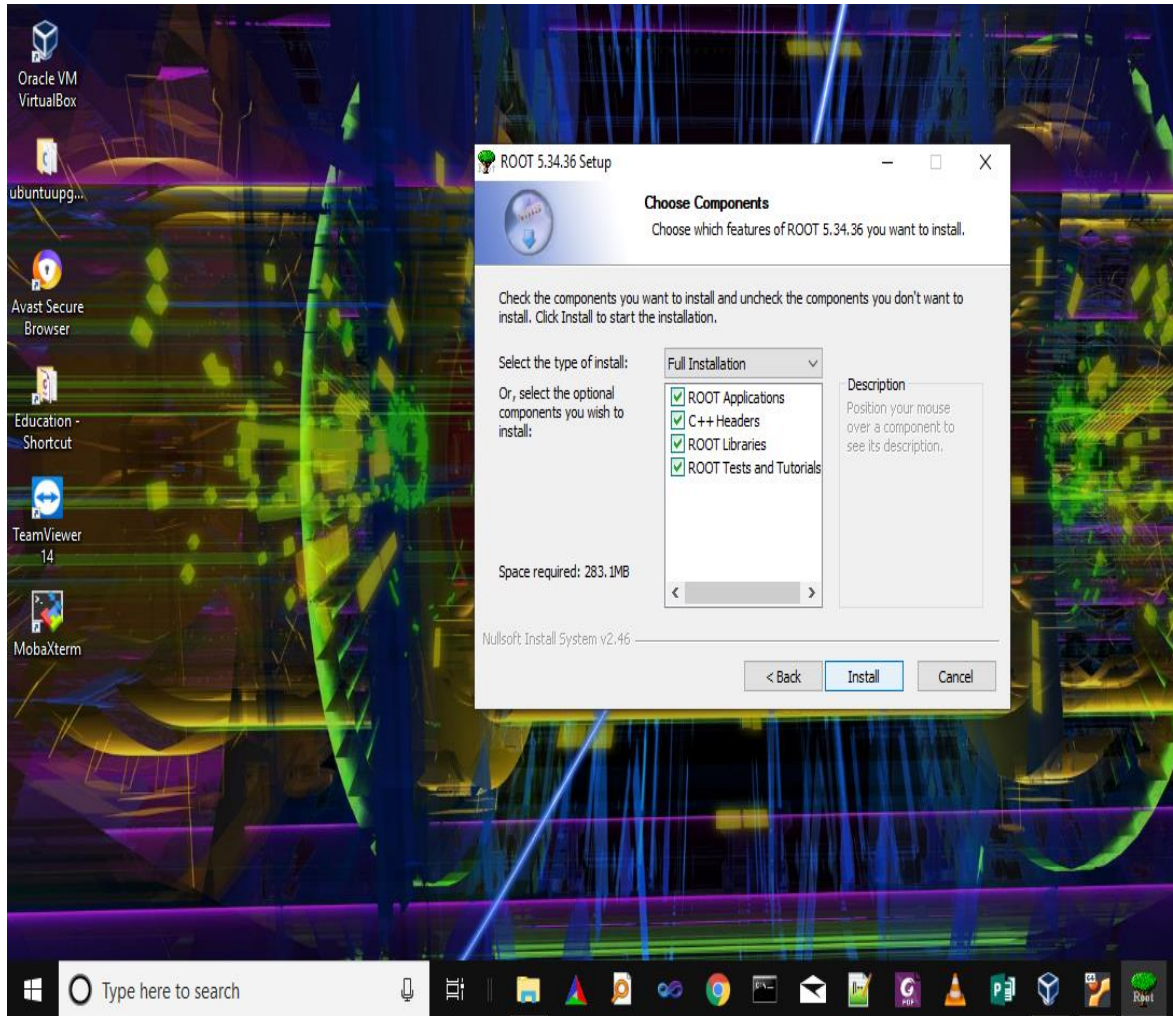
- Now after click on the Agree License and click on the second option, by choosing this option you can access the root software by cmd command.
- And click  
On next next  
Next.



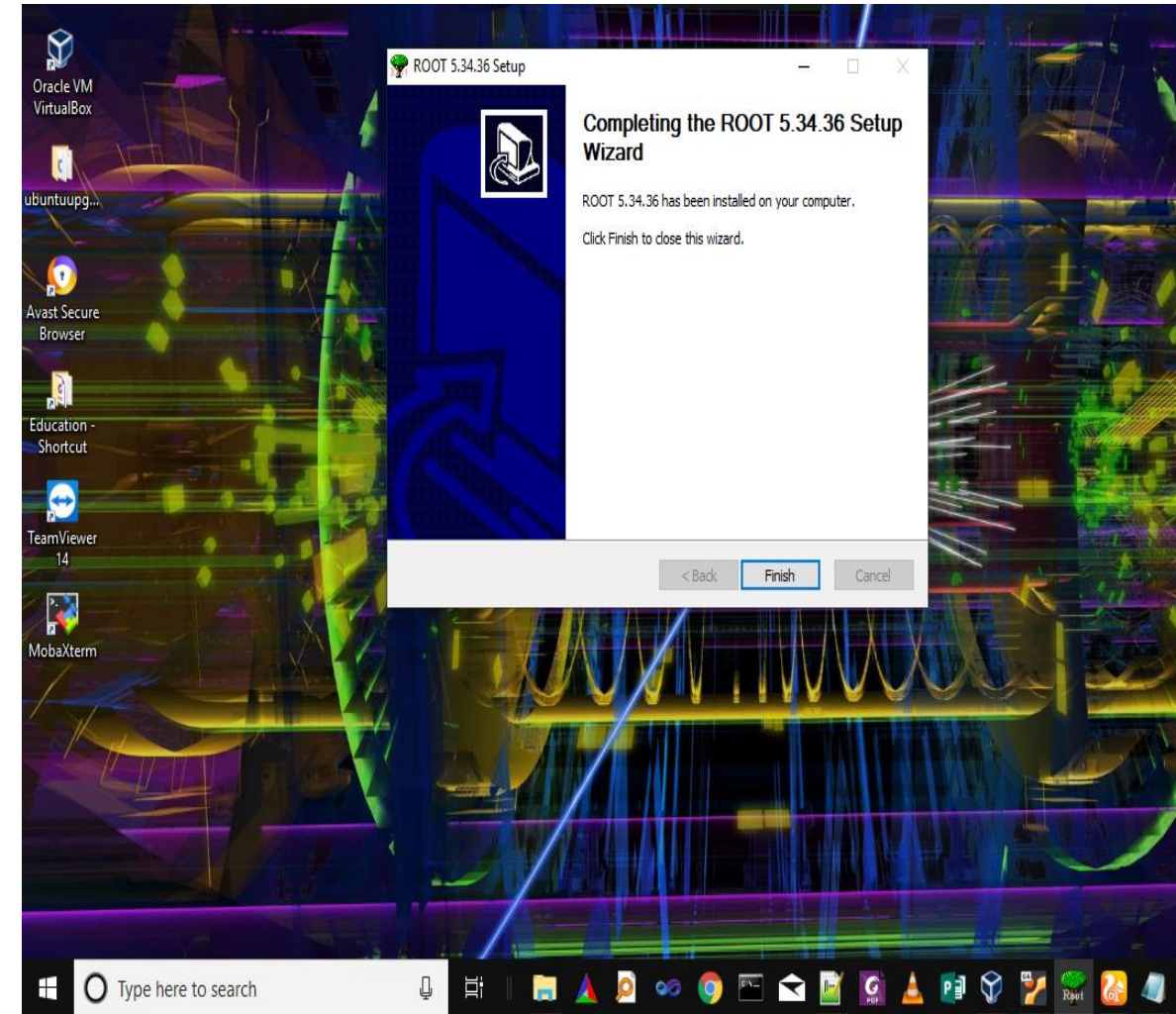


# Installation Root Cern

- Now click on install.

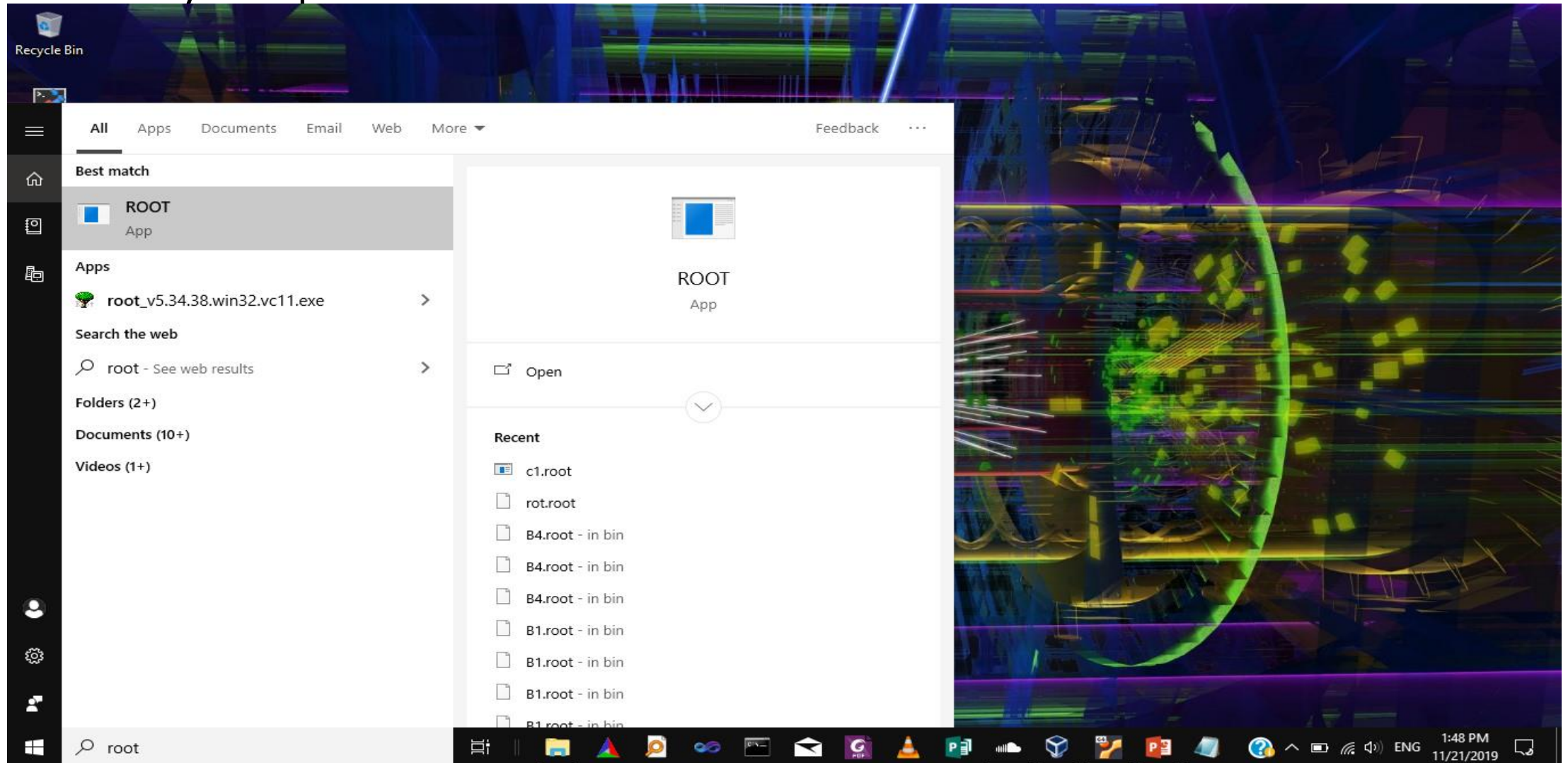


- And after installation click on finish.



# Open the ROOT

- To open the root software go on the “Start menu” there write root and press Enter Key. Its open a windows like that:





# Root as Function Plotter

- Here a following scripts I write on the root to draw the  $\sin(x)$  between range  $[0,180]$ .
- And then at the last by write `.q` and press enter to close the root session.

```
ROOT session
*****
*           W E L C O M E   t o   R O O T           *
*   Version   5.34/36       5 April 2016             *
*   You are welcome to visit our Web site           *
*   http://root.cern.ch                             *
*****

ROOT 5.34/36 (v5-34-36@v5-34-36, Apr 05 2016, 10:25:45 on win32)

CINT/ROOT C/C++ Interpreter version 5.18.00, July 2, 2010
Type ? for help. Commands must be C++ statements.
Enclose multiple statements between { }.
root [0] sqrt(49)
(const double)7.0000000000000000e+000
root [1] sin(45)
(const double)8.50903524534118440e-001
root [2] 1+1
(const int)2
root [3] cout<<"Hello root -> Hello Farooq :: EHEP"<<endl;
Hello root -> Hello Farooq :: EHEP
root [4] cout<<"sin(x) function plotter"<<endl;
sin(x) function plotter
root [5] TF1*f1=new TF1("my first funciton","sin(x)",0,180)
root [6] f->Draw()
Error: Symbol f is not defined in current scope (tmpfile)(1)
Error: Failed to evaluate f->Draw()
*** Interpreter error recovered ***
root [7] f1->Draw()
Info in <TCanvas::MakeDefCanvas>:  created default TCanvas with name c1
root [8] .q
```

# To write a block of scripts

- We can use a Notepad++ editor.
- First we have to download and install this Notepad++.

<https://notepad-plus-plus.org/downloads/>

- Then open the below link:

<https://notepad-plus-plus.org/downloads/v7.8.1/>

- For windows 64-bit x64 you have to use the below link:

<http://download.notepad-plus-plus.org/repository/7.x/7.8.1/npp.7.8.1.Installer.x64.exe>

- Now after download the Notepad++ install this.

# Notepad++

- First open the notepad++ software by double clicking on it. And click on next next , agree the licence , next next and install.