Apache Thrift Installation Tutorial:

The official documentation for installing/using Apache Thrift is currently somewhat lacking. The following are step-by-step instructions on installing Apache Thrift and getting the sample project code running on either a fresh Ubuntu 10.10 installation, or on the **linux.student.cs.uwaterloo.ca** machines.

1. Install the necessary dependencies. These packages should already/soon be available on the **linux.student.cs.uwaterloo.ca** machines.

```
# sudo apt-get install libssl-dev libboost-dev flex bison g++
```

2. Download Apache Thrift 0.7 at:

```
# wget http://archive.apache.org/dist/thrift/0.7.0/thrift-0.7.0.tar.gz
```

3. Untar the tarball to your project directory:

```
# cd ~/project
# tar –xzvf ~/thrift-0.7.0.tar.gz
```

4. Run configure (turning off support for other unused languages)

```
# cd thrift-0.7.0
# chmod u+x configure install-sh
# ./configure --prefix=${HOME}/project --exec-prefix=${HOME}/project --with-python=no --
with-erlang=no --with-java=no --with-php=no --with-csharp=no --with-ruby=no
# make
# make install
```

5. Download the sample code from the course website:

```
# cd
# wget http://www.cs.uwaterloo.ca/~bernard/courses/cs454/sample-0.1.1.tar.gz
# cd project
# tar –xzvf ~/sample-0.1.1.tar.gz
```

6. Compile the WatDHT.thrift file:

```
# cd sample
# ~/project/bin/thrift --strict --gen cpp WatDHT.thrift
```

7. Replace the first 4 lines of the Makefile in the sample code with the following:

```
CXX = g++
CPPFLAGS = -g -fpermissive -Wall -I. -I${HOME}/project/include -
I${HOME}/project/include/thrift -Igen-cpp
LDFLAGS = -L${HOME}/project/lib -lthrift -lpthread -lcrypto
LD = g++
```

8. Compile the sample code:

```
# make
```

9. Add to LD_LIBRARY_PATH (assuming you are using bash as your shell):

```
# export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:${HOME}/project/lib
```