EX.NO: 6b – INSTALLATION OF THRIFT WITH PRACTICE EXAMPLES

AIM:

To install Apache Thrift on Windows and demonstrate code generation for HBase integration.

PROCEDURE:

Step 1: Download and Setup Thrift

Since we are on Windows, we use the pre-compiled binary instead of building from source.

1. **Download:** Get thrift-0.13.0.exe from the official Apache archive.
2. **Move & Rename:** Move the file to C:\hbase-2.2.5\bin and rename it to **thrift.exe**.
3. **Environment Variable:** Add C:\hbase-2.2.5\bin to your System **Path** variables so the command works globally.

Step 2: Verify Installation

Open a new Command Prompt and verify the version:

DOS

```
thrift -version
```

Expected Output: Thrift version 0.13.0

Step 3: Create a Thrift Definition File

Create a practice definition file to tell Thrift what kind of code to generate.

1. Open Notepad and paste:

Thrift

```
service HBaseTest {
  void ping(),
  string getStatus()
}
```

2. Save it in C:\hbase-2.2.5\bin as **lab.thrift**.

Step 4: Practice Example (Code Generation)

Generate the Python "stubs" (the client-side bridge code).

1. Run the compiler command:

DOS

```
thrift --gen py lab.thrift
```

2. Verify the generated files:

DOS

dir gen-py\lab

Expected Result: You will see HBaseTest.py, constants.py, and ttypes.py. These files allow Python to talk to the Thrift server.

Step 5: Start the HBase Thrift Server

Now, open the "bridge" that connects external code to your database.

1. Run the Thrift service:

DOS

hbase thrift start

Expected Result: The terminal will show starting HBase ThreadPool ThriftServer on port 9090.

RESULT:

The installation of Apache Thrift was successfully completed on Windows. The practice exercise demonstrated that the Thrift compiler can generate language-specific source code (.py files), and the HBase Thrift Server was successfully initialized on port 9090 for cross-language database operations.