HBase 101

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Introduction

- Quickly get started with HBase
- Use standalone mode on your laptop
- Write “Hello HBase World!”

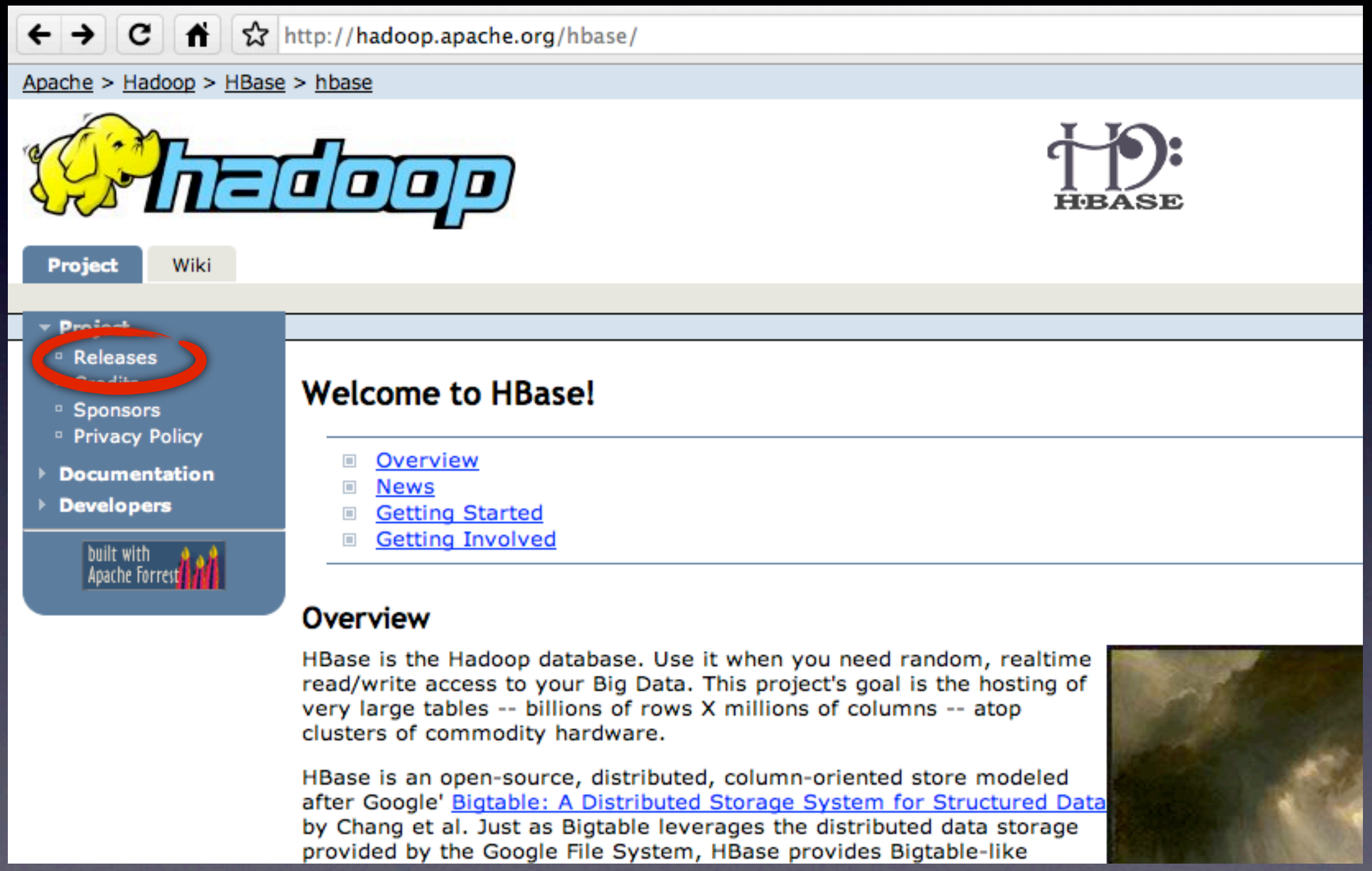
Requirements

- Java 6
- Windows? Cygwin maybe

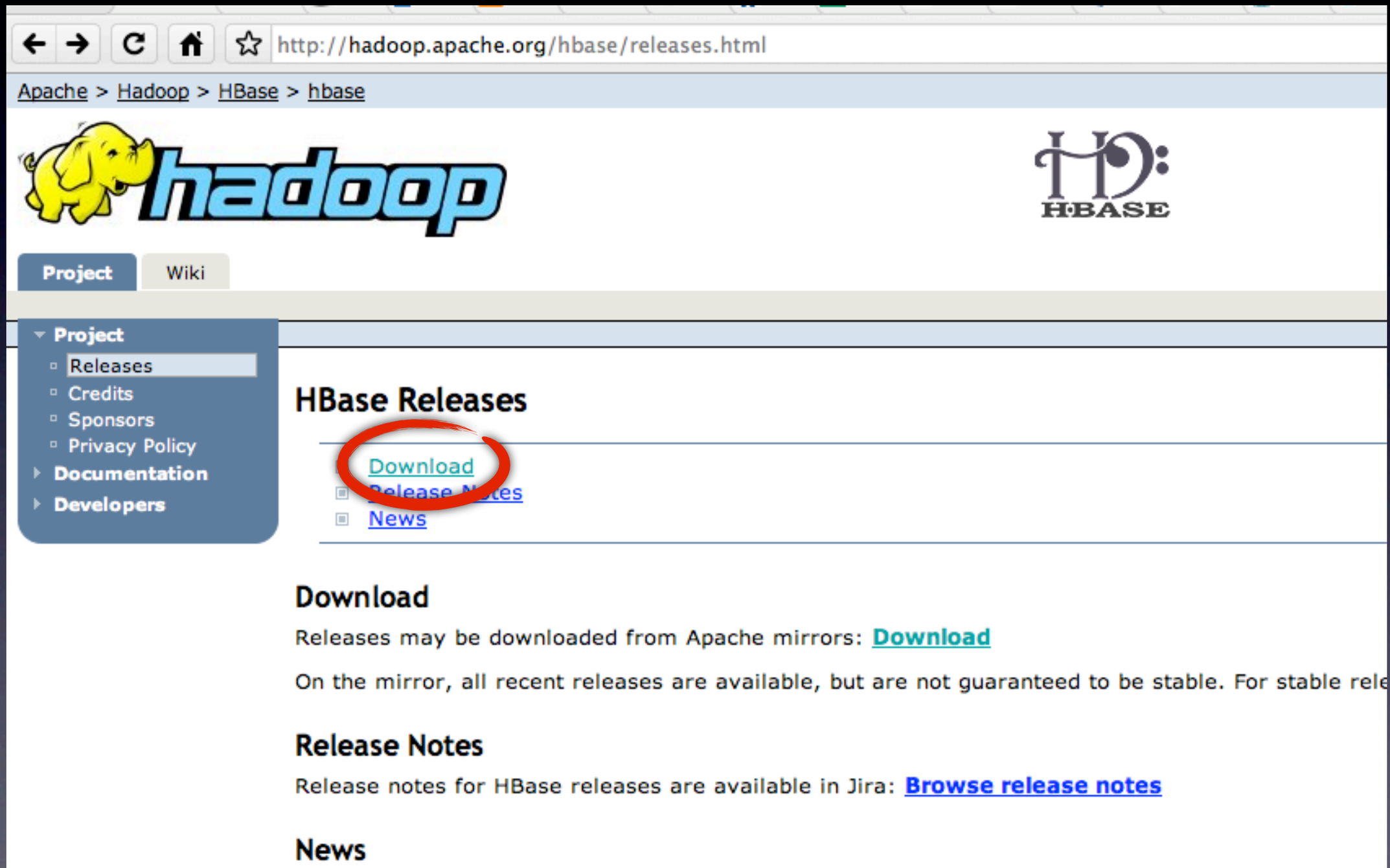
Get Lab on Github

- Handy download:
- http://github.com/ryanobjc/hbase-lab

Download HBase



Download HBase



Untar package

- tar -zxvf hbase-0.20.3.tar.gz

Optional

- Use my 0.20.3-r1 for easier standalone on windows
- Patch will be rolled into 0.20.4
- It's on github
- If you do this, replace hbase-0.20.3 with hbase-0.20.3-r1 in the following examples

Start HBase standalone

- cd hbase-0.20.3
- bin/start-hbase.sh
- bin/hbase shell

Create table

- In shell:
- bin/hbase shell
- > create ‘test_table’, {NAME => ‘test’}

Setup project

- Using IntelliJ or Eclipse, new project
- Add hbase-0.20.3/*.jar hbase-0.20.3/lib/*.jar and hbase-0.20.3/conf to classpath

Ant?

- To build:
- $ ant
- To get classpath:
- $ ant classpath

Client 1: Put

```
HBaseConfiguration conf = new HBaseConfiguration();

HTable table = new HTable(conf, "test_table");
```

```
Put put = new Put(Bytes.toBytes("hello_row"));

put.add(Bytes.toBytes("test"), Bytes.toBytes("qualifier"),

    Bytes.toBytes("Hello HBase World!"));

table.put(put);
```

Examine results

- In Shell:
- > get ‘test_table’, ‘hello_world’
- > scan ‘test_table’

Client 2: Get

```
HBaseConfiguration conf = new HBaseConfiguration();

HTable table = new HTable(conf, "test_table");


Get get = new Get(Bytes.toBytes("hello_row"));

Result result = table.get(get);


byte [] value = result.getValue(Bytes.toBytes("test"),

    Bytes.toBytes("qualifier"));

System.out.println(Bytes.toString(value));
```

Client 3: Scan

- Too much for presentation!

What's next?

- Running HBase on a cluster
- Client configuration requirements:
  - quorum, ZK path
  - Adjusting hadoop-env.sh to use HBase