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# **Projects On Big Data Software Documentation**

***Release 1.0.1***

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- Course Page: <http://datascience.scholagrid.org>
- FutureSystems Project Page: <https://portal.futuresystems.org/projects/491>



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**Notice**

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System Notice





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## Weekly Plan

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### 2.1 Weekly Plan

#### Page Contents

- *Notice*
  - *Unit 1*
    - \* *Gaining Access to FutureSystems and Core Technologies*
      - *Length of the lessons in Unit 1*

Schedule for Technology Units

Table 2.1: Schedule Section on Technologies

Unit	Topic	Due
Unit 1 (Tech)	<b>Gaining Access to FutureSystems and Core Technologies</b>	01/25

#### 2.1.1 Notice

System Notice

#### Unit 1

#### Gaining Access to FutureSystems and Core Technologies

In this unit, you will learn how to gain access to the FutureSystems resources. It includes the portal account creation, class project participation, SSH key generation and login node access. Some of other lessons have been prepared for the beginners to help understand the basics of Linux operating systems and the collaboration tools i.e. GitHub, Google Hangout and Remote Desktop. Please watch video lessons and read through web contents.

Table 2.2: Collaboration Tools

Topic	Video	Text	Assignment	Study Material By	HW Due
<b>Overview and Introduction</b>	2 mins	10 mins			N/A
<b>Google</b> <ul style="list-style-type: none"> <li>Google+, Hang-out, Remote Desktop</li> </ul>	4 mins	15 mins			N/A
<b>Shell Access</b>	3 mins	10 mins			N/A
<b>GitHub</b>	18 mins	30 mins	10 mins		

Table 2.3: System Access to FutureSystems

Topic	Video	Text	Assignment	Study Material By	HW Due
<b>ssh-keygen</b>	4 mins	10 mins	see (a) below	03/23	04/03 see (a) below
<b>Account Creation</b>	12 mins	10 mins	see (a) below	03/23	04/03 see (a) below
<b>Remote Login</b>	6 mins	10 mins	see (a) below	03/23	04/03 see (a) below
<b>Putty for Windows</b>	11 mins	10 mins	see (a) below	03/23	04/03 see (a) below

- (a) Create an account on the FutureSystems Portal, upload your ssh key and log into india. Dependent on your OS you may or may not need to use putty. Please identify a location from where you can login via ssh. Maybe such a location exists outside of your office.

Table 2.4: Linux Basics

Topic	Video	Text	Assignment	Study By	Material	HW Due
<b>Overview and Introduction</b>	4 mins	5 mins		03/23		
<b>Shell Scripting</b>	15 mins	30 mins	5 mins, 5 mins, 10 mins, 10 mins	03/23		04/03 all 4 Labs
<b>Editors</b> <ul style="list-style-type: none"> <li>Emacs, vi, and nano</li> </ul>	5 mins	30 mins	see (b) below	03/23		04/03 see (b) below
<b>Python</b> <ul style="list-style-type: none"> <li>virtualenv, Pypi</li> </ul>	27 mins	1 hour	30 mins	03/23		04/03
<b>Package Managers</b> <ul style="list-style-type: none"> <li>yum, apt-get, and brew</li> </ul>	3 mins	10 mins	see (c) below	03/23		04/03 see (c) below
<b>Advanced SSH</b> <ul style="list-style-type: none"> <li>SSH Config and Tunnel</li> </ul>	3 mins	20 mins	5 mins, 5 mins	03/23		04/03 both Labs
<b>Modules</b>	3 mins	10 mins	5 mins	03/23		04/03

- (b) Find an editor that you will be using to do your programming with. For advanced Python programming we recommend PyCharm. However you can probably only use this on your local computer. The way you could use it is to edit python locally, check the code into github and check it out into your vm or your login on india.futuresystems.org. This is how many of us work.
- (c) locate a package that you install on your VM that you started with Openstack. Provide a verification that the package was installed (log). Do not forget to delete the VM after you are done. Which package manager is used on ubuntu?

### Length of the lessons in Unit 1

- Total of video lessons: 2 hours
- Total of study materials: 4 hours and 30 minutes
- Total of lab sessions: 1 hour and 30 minutes



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# Office Hours

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### General Discussions (Adobe Connect)

- TBD

### Support Office Hours (Google hangout)

Office hours are conducted on appointment only during the times given below. Please send an mail to [bdosspcourse-help@googlegroups.com](mailto:bdosspcourse-help@googlegroups.com)

- Mon-Fri 9-5pm

Contact

## 3.1 Adobe Connect

Discussions will be done using Adobe Connect. Make sure you are prepared to join a meeting by the following links:

1. Adobe Connect Setup Instructions: <https://ittraining.iu.edu/connectsetup/>
2. Installing Adobe Connect Plug-In: <https://kb.iu.edu/d/bdoc>
3. Testing Connectivity: [https://connect.iu.edu/common/help/en/support/meeting\\_test.htm](https://connect.iu.edu/common/help/en/support/meeting_test.htm)

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**Important:** You can join a meeting by [this link](#).

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**Note:** All times are in US Eastern Standard Time (EST).

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Additionally, there may be some technical issues when attempting to join a meeting, please see the following for guidance.