**General Instructions:**

PLEASE READ CAREFULLY

1. All files you edit in vlab need to be saved before evaluation. Press ctrl + s to save the files. You can look for that asterisk(\*) sign on top of each file to check whether the files are saved.
2. You need to commit the edited files before submission. Press the git VCS button and put a commit message and commit the code.
   1. Don’t submit without any commit as it will just submit empty files.
   2. Note: Two back-to-back commits without any code change will not result in any new commit as the files are the same.
   3. **It is recommended to commit your files from time to time so that you can restore any version of your code you want.**
3. To make a submission , click on submission button and select **final submission**. Select the commit id that you want to submit for final evaluation from the drop-down menu. Once selected press the submit button.
   1. Note: If you see clicking submit button is taking too long (i.e the spinner is moving for more than 10-15 secs ) just click outside and submit again i.e retry the submission it will be faster this time.
   2. Note: you can make the final submission any number of times you want within the entire exam duration. Only the latest final submission will be evaluated.
   3. **IMPORTANT: We strongly encourage you to make periodic final submissions for every activity. In case the machine crashes, you can move to another machine, login and download your submission. Copy/paste the content and proceed.**
4. Once you have made your submission, verify your submission.
   1. Click on previous submission -> Previous Final Submission and verify if there is an entry in the table.
      1. Note: Even If you have made multiple submissions it will show only one entry with a timestamp of the first submission but files get replaced so don’t panic if you don't see the latest timestamp. But you should see one entry. If no entry is there it indicates that no final submission has been done.
      2. Further, for any activity, you will find a Download Submission button at the bottom right corner of the activity page. Clicking it will download your final submission for that activity. Do go through individual files and check the content carefully. This means your submission is on the server.
      3. **Create a folder called submission\_rollno\_cs104 (replace rollno with your rollno). Copy the downloaded submission for that activity into this folder (name it appropriately).** This is a backup in case there is some mess up, we can pull your submission from this folder post exam.
5. Once verified and backed up your submission, you can move to the next activity.

**Lab Details:**

1. NO INTERNET WILL BE AVAILABLE DURING THE LAB OTHER THAN TO BODHITREE SERVERS. You can download whatever you want before the exam starts.
2. The marks distribution across the topics is basic python: 4; advanced python: 7; make: 3 gdb: 4; spreadsheet: 7; latex: 5. Please plan your time accordingly.
3. Marks if any provided on the vlab app are for practice only and may not have any correlation with the final marks which will be determined based on server side evaluations.
4. For both spreadsheet and latex, you will need to use the local machine since the images are very large otherwise. Spreadsheet you will use libreoffice calc. We have shared some specific instructions for this already. For latex you will use pdflatex as installed on the local machine. Editing you can use any local editor (e.g. gedit). You can view the pdf via evince app.
5. Checklist: Before exam starts, please check the following is working fine in your machine
   1. Login to vlab app and access past activities
   2. Python runs and can access numpy and matplotlib
   3. Can open and use libreoffice calc
   4. gdb
   5. make
   6. Pdflatex; evince; any editor to open tex files