A T M E College of Engineering

BCS358C : Project Management With GIT

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Course Objectives

Project Management with Git		Semester	3
Course Code	BCS358C	CIE Marks	50
Teaching Hours/Week (L:T:P: S)	0: 0 : 2: 0	SEE Marks	50
Credits	01	Exam Marks	100
Examination type (SEE)	Practical		

Course objectives:

- .To familiar with basic command of Git
- To create and manage branches
- To understand how to collaborate and work with Remote Repositories
- To familiar with virion controlling commands

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Course Outcomes

Course outcomes (Course Skill Set):

At the end of the course the student will be able to:

- Use the basics commands related to git repository
- Create and manage the branches
- Apply commands related to Collaboration and Remote Repositories
- Use the commands related to Git Tags, Releases and advanced git operations
- Analyse and change the git history

CIE Evaluation

Continuous Internal Evaluation (CIE):
CIE marks for the practical course are **50 Marks**.
The split-up of CIE marks for record/ journal and test are in the ratio **60:40**.

- Each experiment is to be evaluated for conduction with an observation sheet and record write-up. Rubrics for the evaluation of the journal/write-up for hardware/software experiments are designed by the faculty who is handling the laboratory session and are made known to students at the beginning of the practical session.
- Record should contain all the specified experiments in the syllabus and each experiment write-up will be evaluated for 10 marks.
- Total marks scored by the students are scaled down to **30 marks** (60% of maximum marks).
- Weightage to be given for neatness and submission of record/write-up on time.
- Department shall conduct a test of 100 marks after the completion of all the experiments listed in the syllabus.
- In a test, test write-up, conduction of experiment, acceptable result, and procedural knowledge will carry a weightage of 60% and the rest 40% for viva-voce.
- The suitable rubrics can be designed to evaluate each student's performance and learning ability.
- The marks scored shall be scaled down to **20 marks** (40% of the maximum marks).

The Sum of scaled-down marks scored in the report write-up/journal and marks of a test is the total CIE marks scored by the student.

SEE Rubrics

- General rubrics suggested for SEE are mentioned here, writeup-20%, Conduction procedure and result in -60%, Viva-voce 20% of maximum marks. SEE for practical shall be evaluated for 100 marks and scored marks shall be scaled down to 50 marks (however, based on course type, rubrics shall be decided by the examiners)
- Change of experiment is allowed only once and 15% of Marks allotted to the procedure part are to be made zero.
  The minimum duration of SEE is 02 hours

Programs List

Local Repository-

1. Git add, commit.
2. Git branch, merge.
3. Git stash.

Remote Repository -

4. Git clone.
5. Git rebase.
6. Git branch merge.
7. Git tags and releases.
8. Advanced Git operations. Git cherry-pick
9. Analyzing and changing Git history. (Programs 9 to 12)

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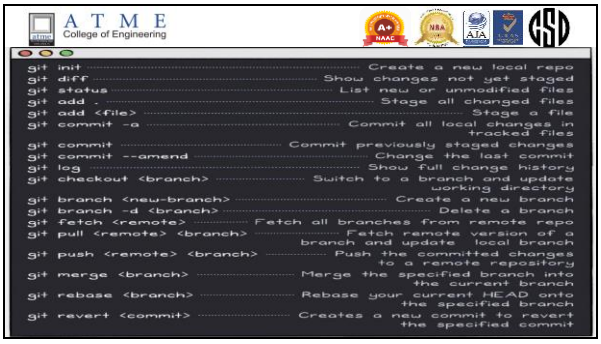

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To DO List

Setup for remote repositories - Create a Account in GitHub with your personal email ID and add ssh-key in the GitHub website for password less access from the remote repository.

(https://docs.github.com/en/enterprise-server@3.7/authentication/connecting-to-github-with-ssh/generating-a-new-ssh-key-and-adding-it-to-the-ssh-agent)

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Commonly Used Linux Commands

- **ls** – Displays information about files in the current directory.
- **pwd** – Displays the current working directory.
- **mkdir** – Creates a directory.
- **cd** – To navigate between different folders.
- **cat** – Display file contents on terminal
- **clear** – Clear terminal
- **rmdir** – Removes empty directories from the directory lists.
- **cp** – Moves files from one directory to another.
- **mv** – Rename and Replace the files
- **rm** – Delete files
- **uname** – Command to get basic information about the OS
- **locate**– Find a file in the database.
- **touch** – Create empty files

Continued..

- **ln –** Create shortcuts to other files
- **ps-** Display the processes in terminal
- **man –** Access manual for all Linux commands
- **grep-** Search for a specific string in an output
- **echo-** Display active processes on the terminal
- **wget –** download files from the internet
- **whoami-** Create or update passwords for existing users
- **sort-** sort the file content
- **cal-** View Calendar in terminal
- **whereis –** View the exact location of any command types after this command
- **df –** Check the details of the file system
- **wc –** Check the lines, word count, and characters in a file using different options

Commands

sudo apt install git

- **git --version**
- **git init**
- **git status**
- **git add file names**
- **git commit -m "commit message"**
- **git log**
- **git branch**
- **git branch -a**
- **git checkout branch_name**
- **git merge branch_name**
- **git stash save**
- **git stash pop**