**Roll No:** 6620

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**Topic:** Continuous Integration with CircleCI

**Content:**

1. CircleCI is the continuous integration & delivery platform that helps the development teams to release code rapidly and automate the build, test, and deploy.
2. CircleCI can be configured to run very complex pipelines efficiently with caching, docker layer caching, resource classes and many more. After repositories on GitHub or Bitbucket are authorized and added as a project to circleci.com, every code triggers CircleCI runs jobs.
3. CircleCI also sends an email notification of success or failure after the tests complete.
4. How to configure a job in CircleCI

**Step 1:** *Create a sample project in GitHub*

**Step 2:** *Login using GitHub /Bitbucket*

**Step 3:** *Set up project on CircleCI*

**Step 4:***In GitHub .circleci/config.yml file should be made which will run the workflow*

1. CircleCI finds and runs config.yml and interacts with the code to manage your build, tests, security scans, approval steps, and deployment. CircleCI believes in the configuration as code, so everything is managed through a single file.

*version: 2.1*

*jobs:*

*build:*

*docker:*

*- image: circleci/node:4.8.2 # the primary container, where your job's commands are run*

*steps:*

*- checkout # check out the code in the project directory*

*- run: echo "hello world" # run the `echo` command*

*workflows:*

*version: 2*

*build:*

*jobs:*

*- welcome/run*

*- build*

1. Primary process that is used in CircleCI to build the code

**executor:** adjusting the VM to the preferences and requirements it can be machine, docker or and many more related to the OS

**checkout:** git repo checking out and cloning feature

**dependencies:** setting up your project’s language-specific dependencies

**code:** preparing the code for your tests

**test:** running your tests

**deployment:** deploying your code to your web servers