CI/CD环境搭建实践

第一次团队作业——PPT展示

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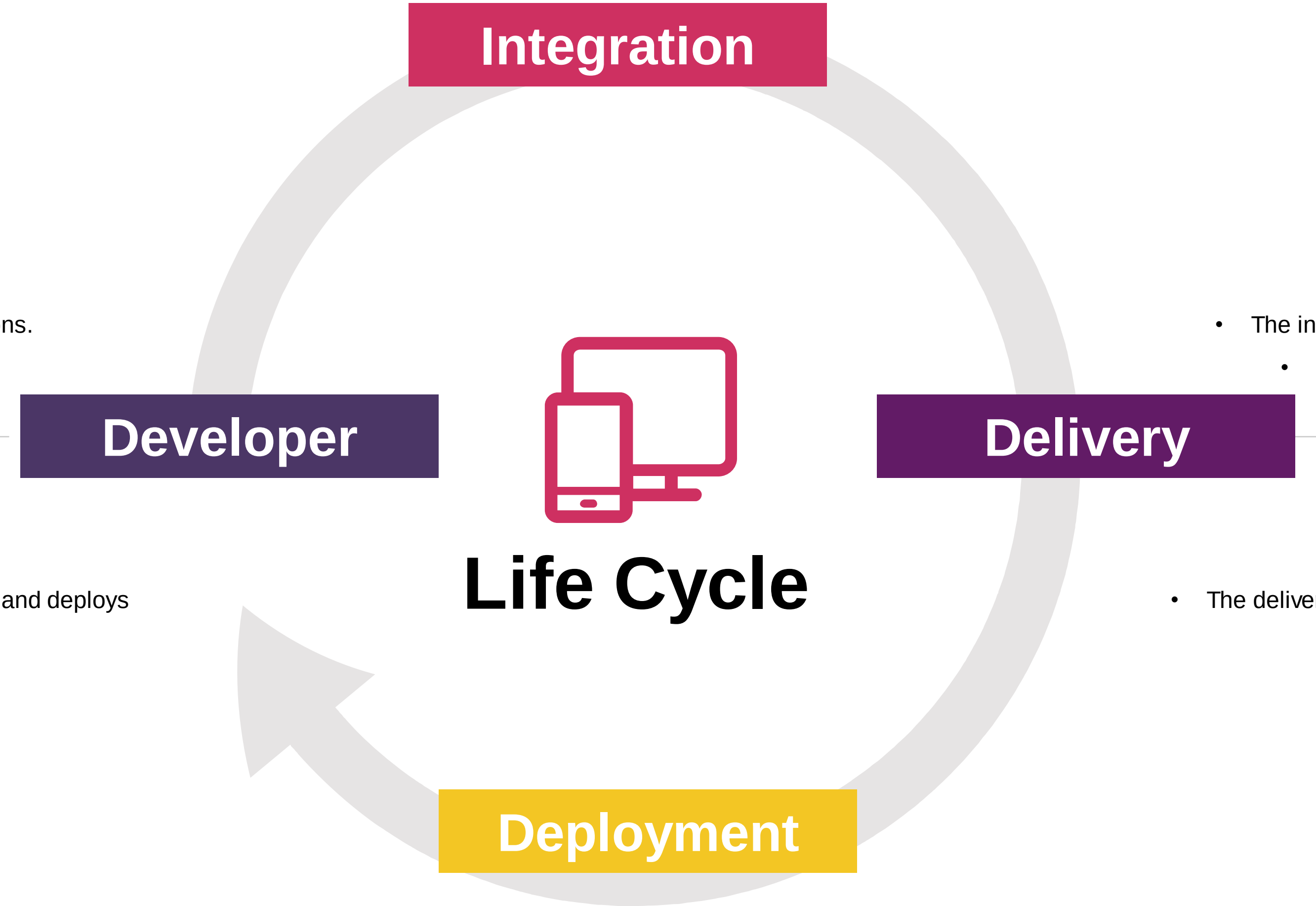
Pipeline

Developer

- Developer writes new modules and functions.
- Then pushes their codes to the server.

Integration

- The integration tool builds the changed project
- Then returns the result to the developer.



Deployment

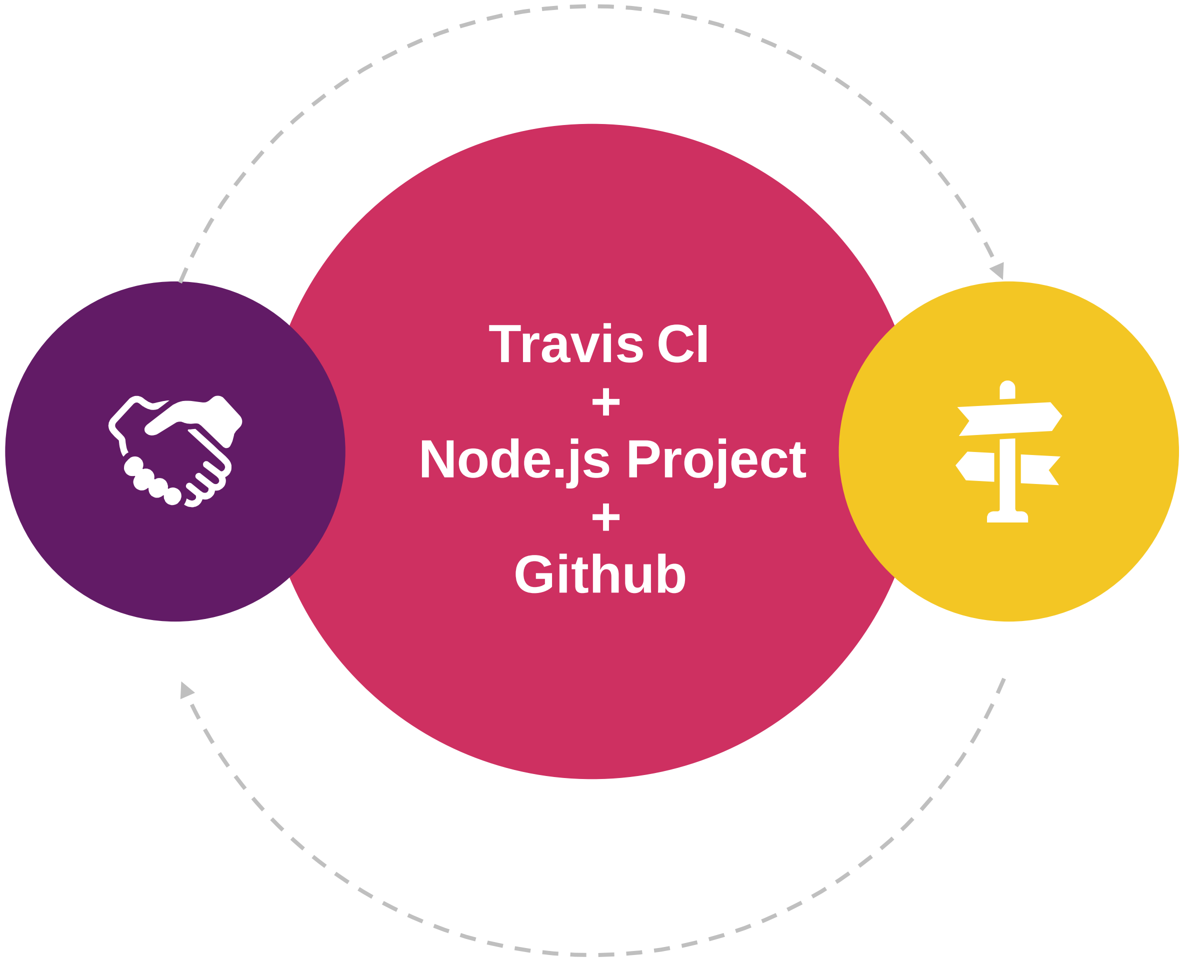
- The deployment tool packages the project and deploys it to the server.

Delivery

- The delivery tool updates the project to the newest edition if the project is built successfully

Achievement

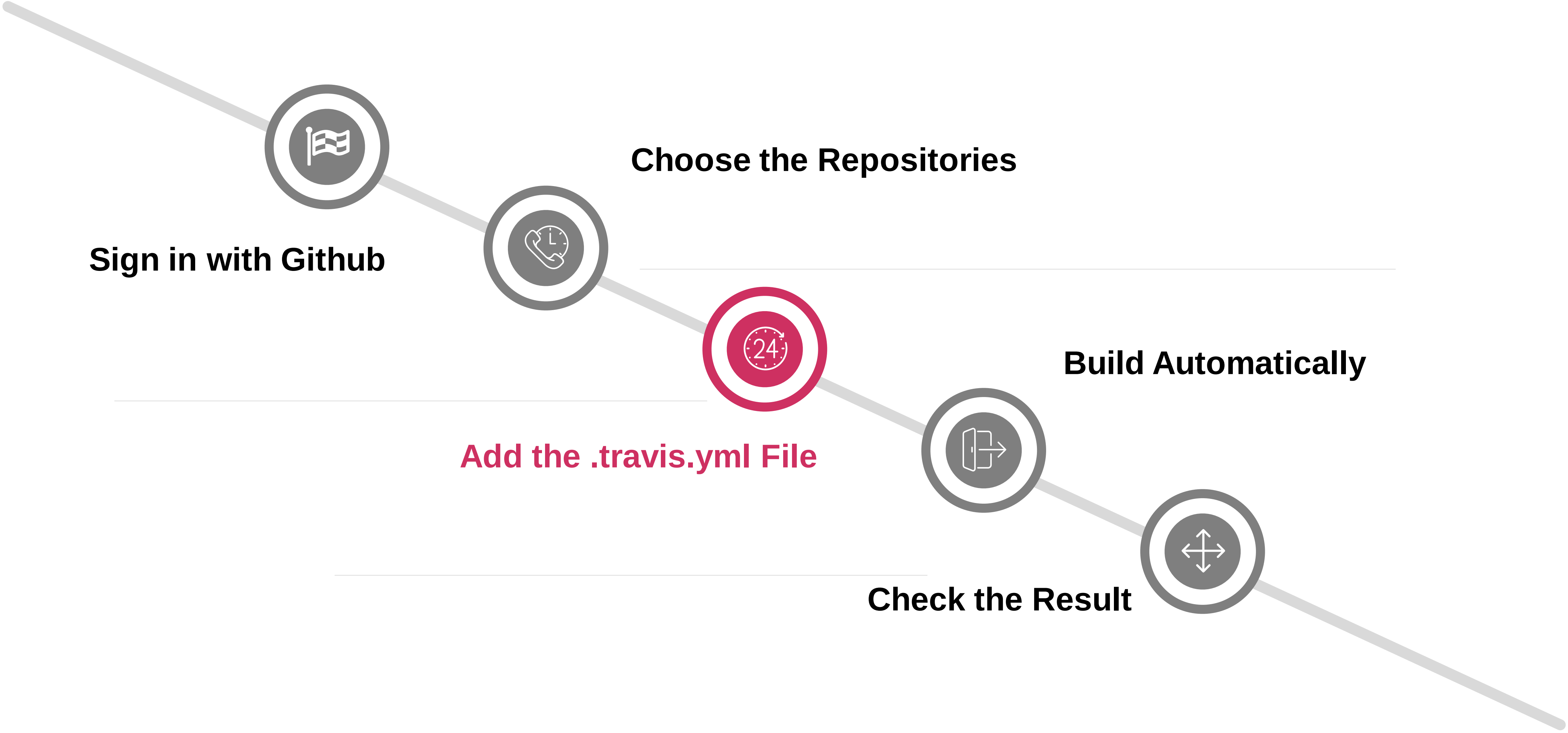
Travis CI : Friendly to Github



Travis CI
+
Node.js Project
+
Github

Github Page

Process



Sign in with Github

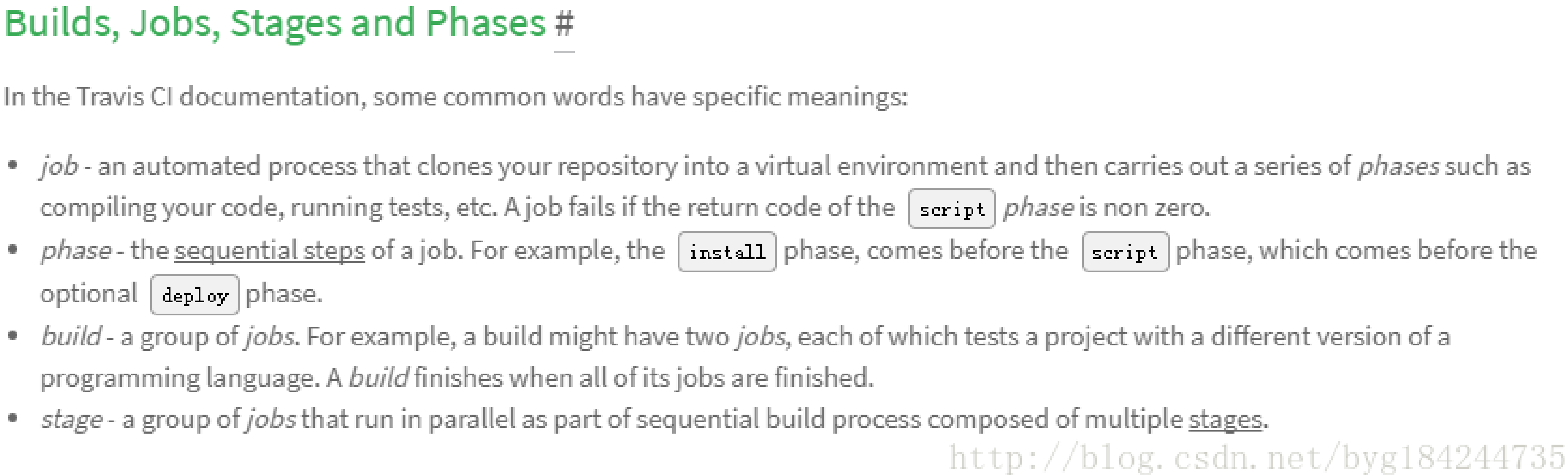
Choose the Repositories

Add the .travis.yml File

Build Automatically

Check the Result

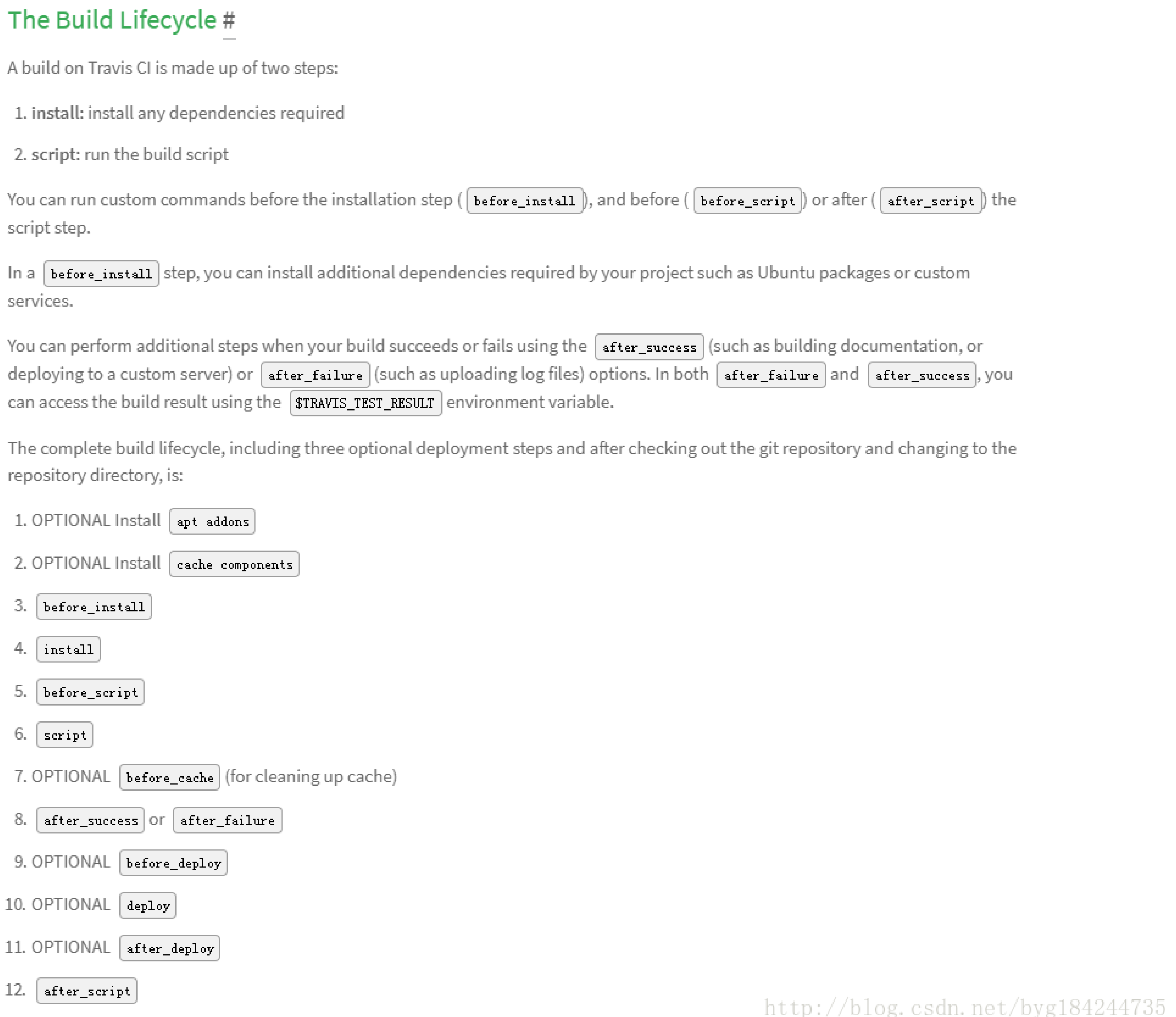
How Travis CI Build/How to Write the .travis.yml



Builds, Jobs, Stages and Phases

In the Travis CI documentation, some common words have specific meanings:

- *job* - an automated process that clones your repository into a virtual environment and then carries out a series of *phases* such as compiling your code, running tests, etc. A job fails if the return code of the `script` *phase* is non zero.
- *phase* - the sequential steps of a job. For example, the `install` phase, comes before the `script` phase, which comes before the optional `deploy` phase.
- *build* - a group of *jobs*. For example, a build might have two *jobs*, each of which tests a project with a different version of a programming language. A *build* finishes when all of its jobs are finished.
- *stage* - a group of *jobs* that run in parallel as part of sequential build process composed of multiple stages.



The Build Lifecycle

A build on Travis CI is made up of two steps:

1. **install:** install any dependencies required
2. **script:** run the build script

You can run custom commands before the installation step (`before_install`), and before (`before_script`) or after (`after_script`) the script step.

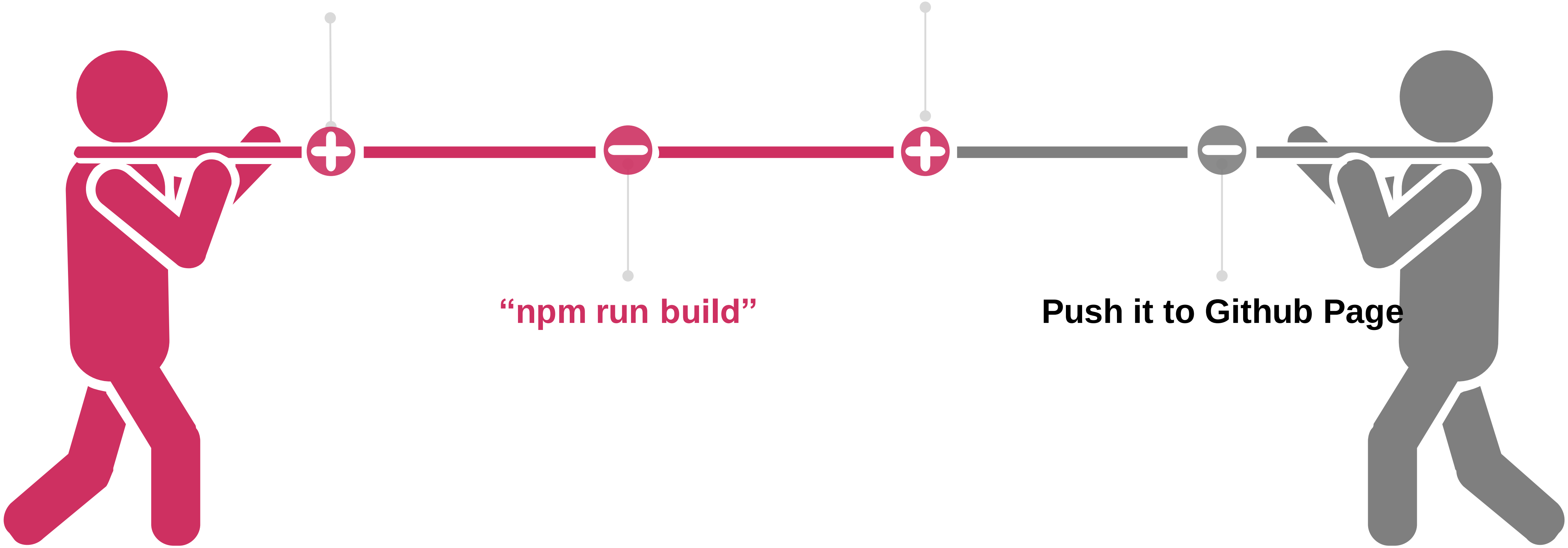
In a `before_install` step, you can install additional dependencies required by your project such as Ubuntu packages or custom services.

You can perform additional steps when your build succeeds or fails using the `after_success` (such as building documentation, or deploying to a custom server) or `after_failure` (such as uploading log files) options. In both `after_failure` and `after_success`, you can access the build result using the `$TRAVIS_TEST_RESULT` environment variable.

The complete build lifecycle, including three optional deployment steps and after checking out the git repository and changing to the repository directory, is:

1. OPTIONAL Install `apt addons`
2. OPTIONAL Install `cache components`
3. `before_install`
4. `install`
5. `before_script`
6. `script`
7. OPTIONAL `before_cache` (for cleaning up cache)
8. `after_success` or `after_failure`
9. OPTIONAL `before_deploy`
10. OPTIONAL `deploy`
11. OPTIONAL `after_deploy`
12. `after_script`

Travis + NPM

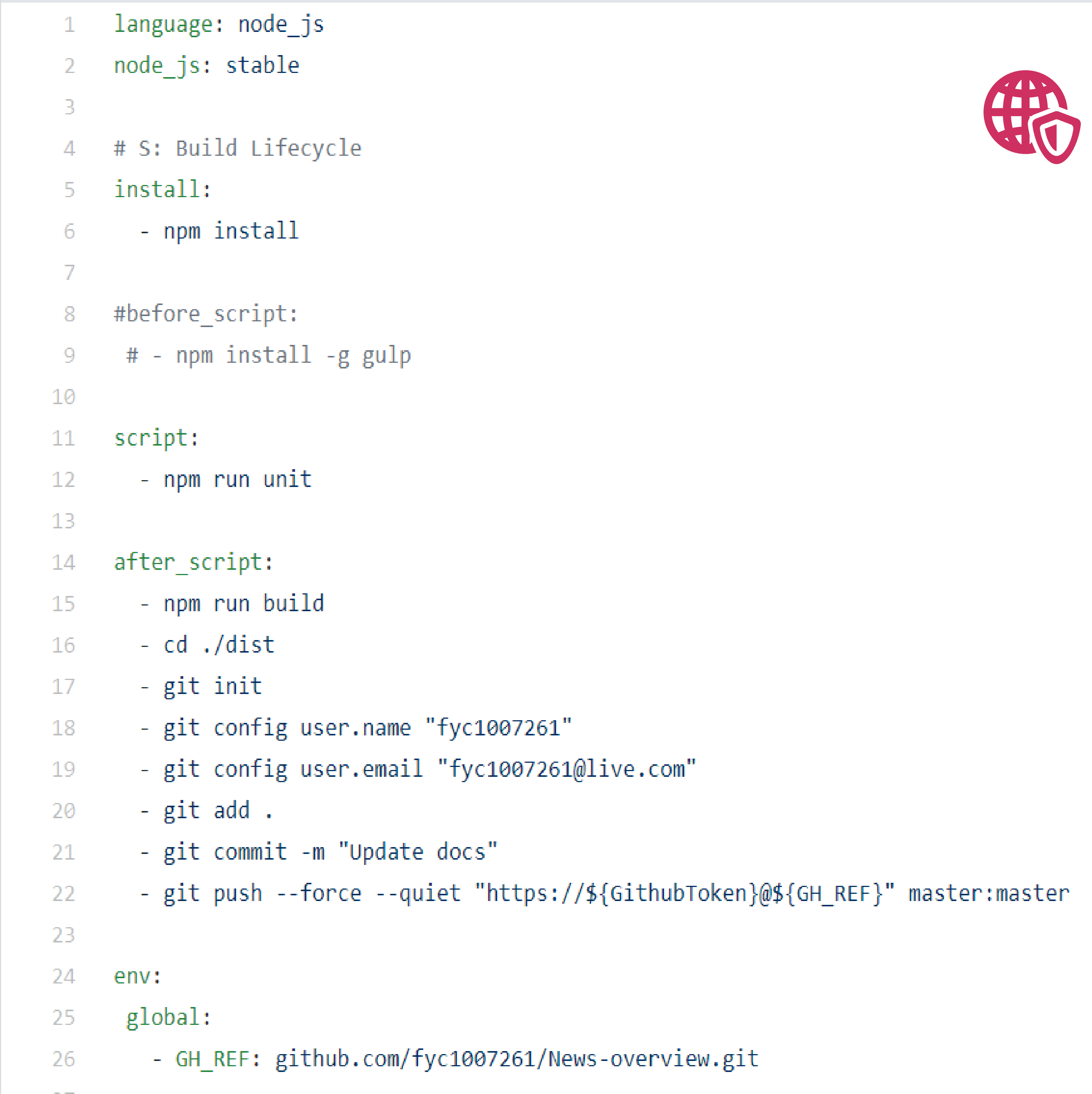


Install npm when Travis builds

Generate an HTML page

“npm run build”

Push it to Github Page

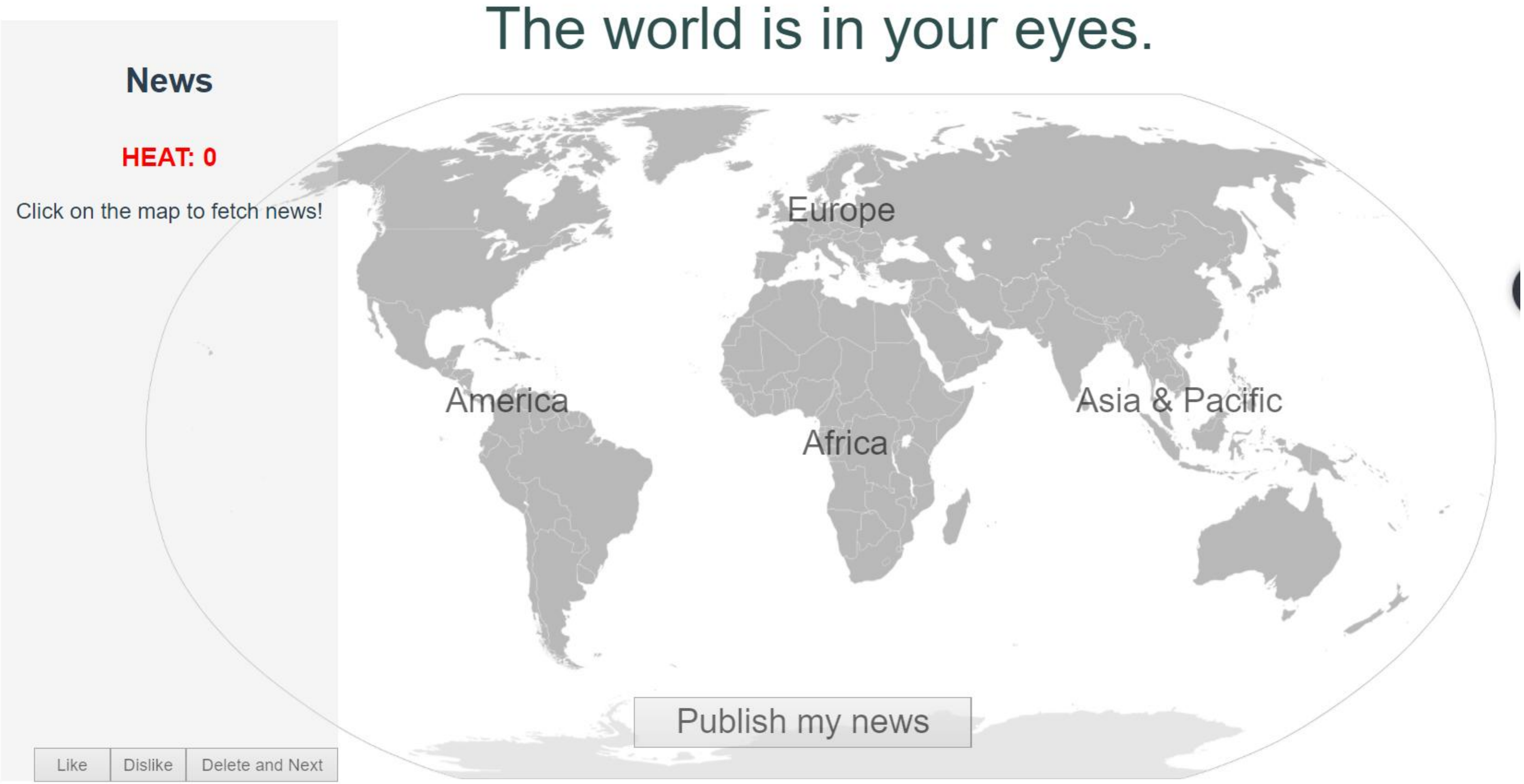


```
language: node_js
node_js: stable

# S: Build Lifecycle
install:
  - npm install

#before_script:
 # - npm install -g gulp

script:
  - npm run unit

after_script:
  - npm run build
  - cd ./dist
  - git init
  - git config user.name "fyc1007261"
  - git config user.email "fyc1007261@live.com"
  - git add .
  - git commit -m "Update docs"
  - git push --force --quiet "https://${GithubToken}@${GH_REF}" master:master

env:
 global:
   - GH_REF: github.com/fyc1007261/News-overview.git
```

.travis.yml in our project

- “npm install ……” : install npm and gulp before the project is integrated.
- “npm run unit” : we used the Vue.js frame
- “npm run build” : build the project
- “git config ……” : the Email address is necessary so Travis can send Error Message to this Email account.
- “git add/commit ……” : the git commands which can commit changes to Github remote server.
- “git push ……” : push the HTML page to our Github Page

The Final Edition of Our Project : https://fyc1007261.github.io/News-overview/#/



The world is in your eyes.

News

HEAT: 0

Click on the map to fetch news!

Thanks.

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