

PROFESSIONAL TRAINING REPORT
at
Sathyabama Institute of Science and Technology
(Deemed to be University)

Submitted in partial fulfillment of the requirements for the award of Bachelor of Engineering Degree in Computer Science and Engineering

By

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SCHOOL OF COMPUTING

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INSTITUTE OF SCIENCE AND TECHNOLOGY
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the Bonafide work of **RICHA SHARMA** (Reg. No: 39120095) who carried out the project entitled "**SCHEDULE MANAGEMENT**" under our supervision from June 2021 to November 2021.

Internal Guide

Dr. Y. Bevish Jinilia, M.E., Ph.D.,

Head of the Department

Submitted for Viva voce Examination held on _____

Internal Examiner

External Examiner

DECLARATION

I **Richa Sharma (Reg. No: 39120095)** hereby declare that the Project Report entitled "**CLOUD COMPUTING** done by me under the guidance of **Dr. Bevish J.** is submitted in partial fulfillment of the requirements for the award of Bachelor of Science degree in Computer Science.

DATE:

PLACE:

RICHA SHARMA

SIGNATURE OF THE CANDIDATE

ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to **Board of Management** of **SATHYABAMA** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

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I would like to express my sincere and deep sense of gratitude to my Project Guide **Dr. Y. Bevish Jinilia, M.E., Ph.D.,** for her valuable guidance, suggestions and constant encouragement paved way for the successful completion of my project work.

I wish to express my thanks to all Teaching and Non-teaching staff members of the **Department of Information Technology** who were helpful in many ways for the completion of the project.

ABSTRACT

Heroku is a popular cloud computing platform that enables us to host a website without any complications. It is less time consuming and easy to use.

In Cloud Computing platforms, When a website is hosted it becomes accessible to all the person using that website, which means even the client can make changes according to their needs.

As a beginner in the field of Cloud Computing, we add more dimensions to the problem and it becomes harder to visualize, but the core of the process remains the same.

The aim of the project is to host a static website on a cloud computing platform. There are various clouds available on the internet, but among those Heroku is best for beginners and is available for free.

Schedule Management System is a static website which is created for storing the data of user's to-do list, the data provided can be easily added, removed or update without any difficulties and is easily accessible by the other users of a particular site.

To predict the use of such system can be helpful for users to plan their days and also work according to their schedules and to setup their everyday system properly.

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LIST OF ABBREVIATIONS

IAAS	Infrastructure as a Service
PAAS	Platform as a Service
SAAS	Software as a Service
MCC	Mobile Cloud Computing
BTS	Base transceiver station
AAA	Authentication, Authorization & Accounting
AWS	Amazon Web Services
GCP	Google Cloud Platform
HTTPS	Hypertext transfer protocol secure
Org	Organization
URL	uniform resource locator
www	world wide web

CHAPTER 1

INTRODUCTION

1.1 Outline of the project

This experiment is carrying out in concern of cloud computing. I made a website for my daily to-do list using front end and then uploaded it on a cloud computing platform Heroku.

Task management is the process of managing a task through its life cycle. It involves planning, testing, tracking, and reporting.

1.2 BACKGROUND OF THE PROJECT

Managing multiple individuals or team tasks may be assisted by specialized software, for example workflow or project management software.

Task management may form part of project management and process management and can serve as the foundation for efficient workflow in an organization.

1.3 PROBLEM STATEMENT

- a. Schedule management system is completely a cloud base system.
- b. Anyone who get the access of the application can assign tasks.
- c. In present scenario this application will be very helpful for big institution like school, college and also for working professionals

1.4 OBJECTIVE:

The main objective is to make sure that your tasks are written down all in one place so you don't forget anything important.

It prioritizes your tasks, you plan the order in which you'll do them, so that you can tell what needs your immediate attention, and what you can leave until later.

And the cloud computing platform in which it is deployed gives the other user's(only to those who are given access) to add or remove the tasks according to their need.

1.5 SCOPE OF THE PROJECT

Organization of a proper work with an accurate planning of every task with its short description.

Simplify the workflow and a timely execution of necessary work scope.

Improvement of your productivity and time management skills.

CHAPTER 2

ALGORITHMS AND METHODS

2.1 HARDWARE AND SOFTWARE REQUIREMENTS

- Windows/Mac Based System
- Necessary Python Libraries
- Programming language: Python, HTML, CSS, JS
- Hardware requirements: CPU
- Software requirements: command prompt, python 3.7.0, Heroku
- As we need some cloud computing platform to host our website, so we are Heroku because it is simple to use and is less time consuming.

2.1.1 *Windows/Mac System*

Windows or Mac operating based system for personal computers or any other internet of things devices.

2.2 DESIGN CRITERIA

- * simplicity : easily understood
- * efficiency : uses minimal resources
- * completeness : solves the problem
- * not independent
- * simplicity by default

2.3 Algorithm Used

- > The to-do list website which we have created is a static website.
- > The front end of the to-do list is done on VS-code using HTML, CSS and

JS.

-> The code is written in Python using FLASK.

-> The other required texts are

-> flask

 gunicorn

 flask_sqlalchemy

 bootstrap_flask

-> After the creation of website it is uploaded on Cloud Computing Platform.

-> The platform which is used here is HEROKU, it is easy to use and comparatively less complicated.

CHAPTER 3

SYSTEM IMPLEMENTATION

3.1 GENERAL

Implementation is the stage in the project where the theoretical design is turned into a working system. The implementation phase constructs, installs and operates the new system. The most crucial stage in achieving a new successful system is that it will work efficiently and effectively.

3.2 IMPLEMENTATION PHASE

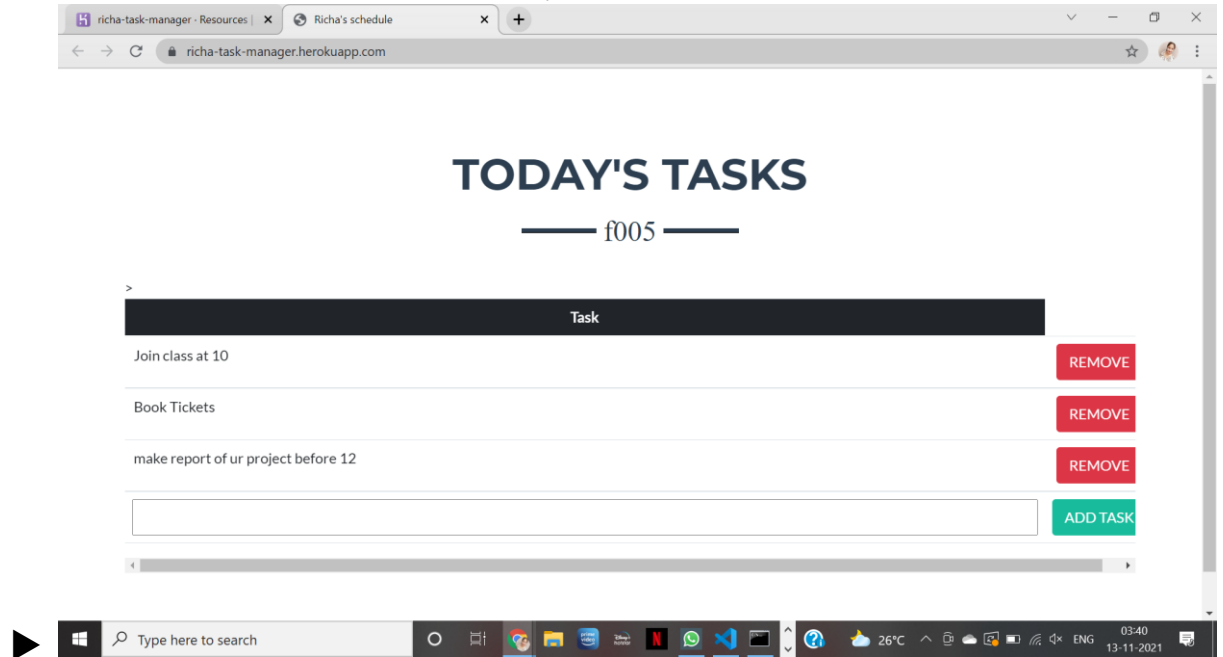
Once we execute our code we will proceed to a webpage where we can add our task. Each person who has access to this can add task according to our concern and requirements.

In the algorithm screening phase, we added few tasks from different different ends and it was easy to perform and implement.

CHAPTER 4

RESULTS AND DISCUSSION

- ▶ After the website is created and uploaded on the cloud and we can add or remove task from the list, it can be viewed as:



CHAPTER 5

CONCLUSION

- ▶ The software reduces the risk of missing any of our important or regular task from our daily life. This software save times too as this can be edited by anyone according to their requirements
- ▶ Programs are menu driven which helps even a newcomer to use the system with little training.
- ▶ The system is highly user friendly and is well efficient to ease interaction with the user of the system. Report generate with the live data are proved to be informative and also helpful in making important Decision. The system is tested and is too safe and ease to use
- ▶ The system is done with an insight into the necessary modification that may require in the future.

SOURCE CODE

```
from flask import Flask, render_template, redirect, request
from flask_bootstrap import Bootstrap
from flask_sqlalchemy import SQLAlchemy

app = Flask(__name__)
app.secret_key = b'_5#y2L"F4Q8z\n\xec]/'
app.config['SQLALCHEMY_DATABASE_URI'] = 'sqlite:///initial_database.db'
db = SQLAlchemy(app)

bootstrap = Bootstrap(app)

class NewWatch(db.Model):
    watch_id = db.Column(db.Integer, primary_key=True)
    task = db.Column(db.String(100), nullable=False)

    def __repr__(self):
        return '<Watch %r >' % self.watch_id

@app.route('/', methods=['GET', 'POST'])
def index():
    if request.method == 'POST':
        watch_task = request.form['task']
        newWatch = NewWatch(task=watch_task)
        try:
            db.session.add(newWatch)
            db.session.commit()
        return redirect('/')

        except Exception:
            return 'There was an issue updating database'
    else:
        watchlist =
NewWatch.query.order_by(NewWatch.watch_id).all()
        return render_template('index.html', watchlist=watchlist)

@app.route('/delete/<int:watch_id>')
def delete(watch_id):
```

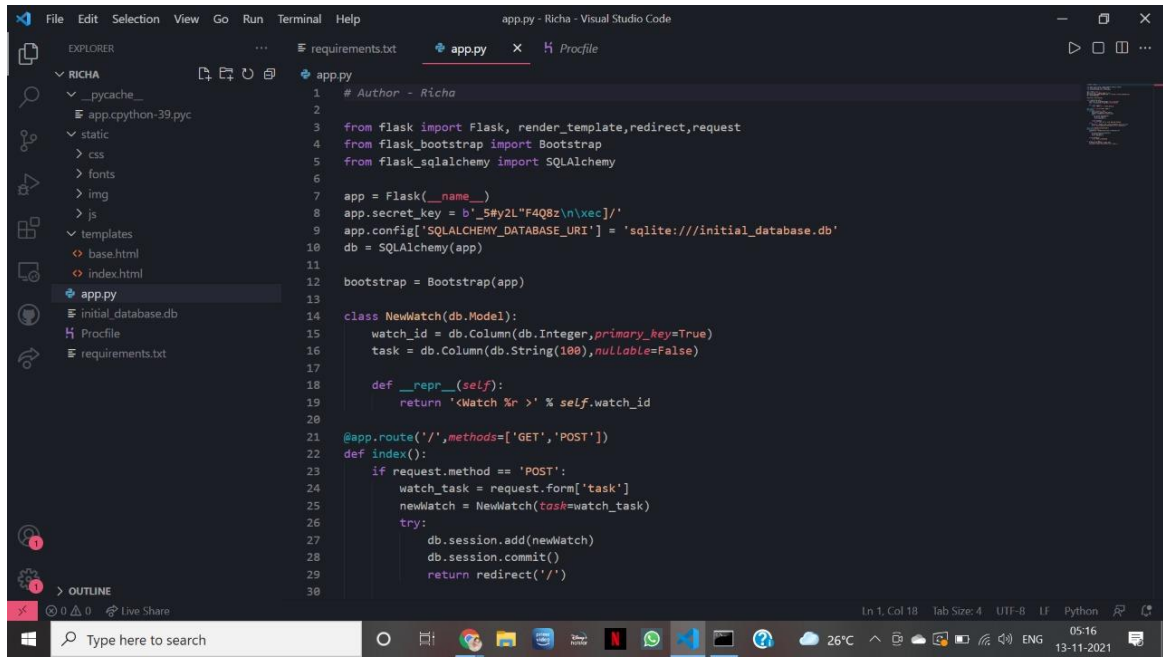
```
taskToDelete = NewWatch.query.get_or_404(watch_id)
try:
    db.session.delete(taskToDelete)
    db.session.commit()
    return redirect('/')

except Exception:
    return 'Error in deleting'

if __name__ == '__main__':
    # Running the web app in debug mode
    app.run(port=4004, debug=False, host='0.0.0.0')
```

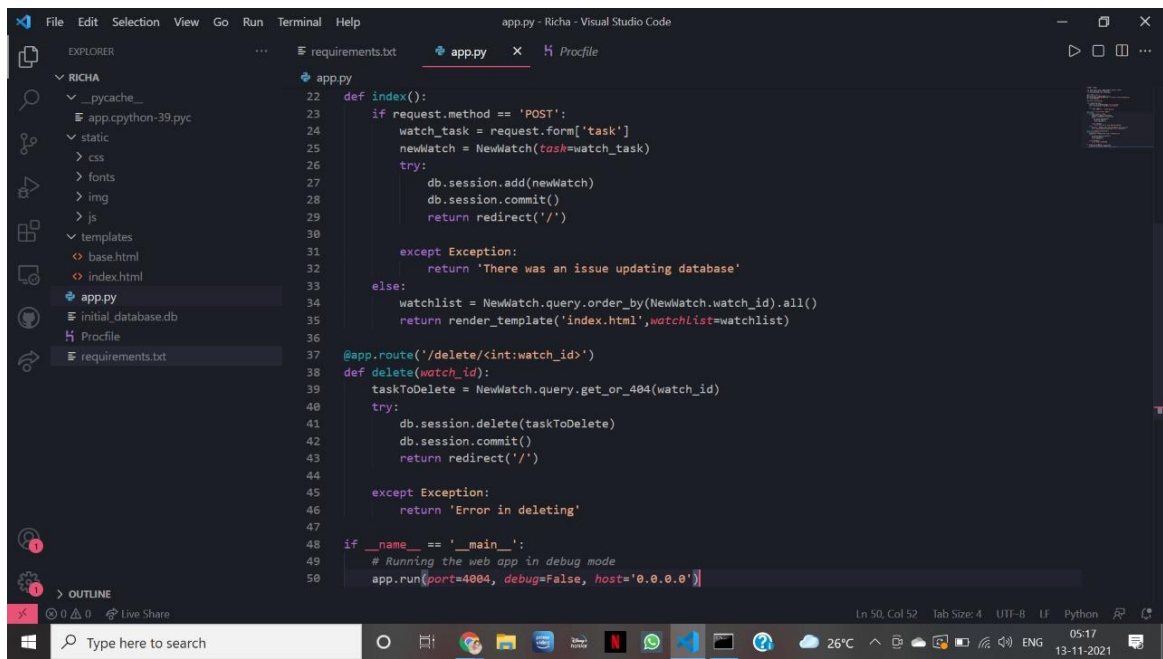
APPENDIX

Code:



This screenshot shows the first 30 lines of the `app.py` file in Visual Studio Code. The Explorer sidebar on the left shows the project structure for 'RICHIA', including files like `app.cpython-39.pyc`, `static`, `css`, `fonts`, `img`, `js`, `templates`, `base.html`, `index.html`, `app.py`, `initial_database.db`, `Procfile`, and `requirements.txt`. The main editor displays the following code:

```
1  # Author - Richa
2
3  from flask import Flask, render_template, redirect, request
4  from flask_bootstrap import Bootstrap
5  from flask_sqlalchemy import SQLAlchemy
6
7  app = Flask(__name__)
8  app.secret_key = b'_5#y2L"F4Q8z\n\xec]/'
9  app.config['SQLALCHEMY_DATABASE_URI'] = 'sqlite:///initial_database.db'
10 db = SQLAlchemy(app)
11
12 bootstrap = Bootstrap(app)
13
14 class NewWatch(db.Model):
15     watch_id = db.Column(db.Integer, primary_key=True)
16     task = db.Column(db.String(100), nullable=False)
17
18     def __repr__(self):
19         return '<Watch %r >' % self.watch_id
20
21 @app.route('/', methods=['GET', 'POST'])
22 def index():
23     if request.method == 'POST':
24         watch_task = request.form['task']
25         newWatch = NewWatch(task=watch_task)
26         try:
27             db.session.add(newWatch)
28             db.session.commit()
29             return redirect('/')
30
```



This screenshot shows the continuation of the `app.py` file, starting from line 22. The Explorer sidebar remains the same. The main editor displays the following code:

```
22 def index():
23     if request.method == 'POST':
24         watch_task = request.form['task']
25         newWatch = NewWatch(task=watch_task)
26         try:
27             db.session.add(newWatch)
28             db.session.commit()
29             return redirect('/')
30         except Exception:
31             return 'There was an issue updating database'
32     else:
33         watchlist = NewWatch.query.order_by(NewWatch.watch_id).all()
34         return render_template('index.html', watchList=watchlist)
35
36 @app.route('/delete/<int:watch_id>')
37 def delete(watch_id):
38     taskToDelete = NewWatch.query.get_or_404(watch_id)
39     try:
40         db.session.delete(taskToDelete)
41         db.session.commit()
42         return redirect('/')
43     except Exception:
44         return 'Error in deleting'
45
46 if __name__ == '__main__':
47     # Running the web app in debug mode
48     app.run(port=4004, debug=False, host='0.0.0.0')
```

Connecting the website code to HEROKU:

```
CA\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19043.1288]
(c) Microsoft Corporation. All rights reserved.

C:\Users\vinut\OneDrive\Desktop\Richa>git init
Initialized empty Git repository in C:/Users/vinut/OneDrive/Desktop/Richa/.git/

C:\Users\vinut\OneDrive\Desktop\Richa>git add .
warning: LF will be replaced by CRLF in Procfile.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in app.py.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in requirements.txt.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in static/css/st.min.css.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in static/fonts/font-awesome.min.css.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in static/fonts/fontawesome-webfont.svg.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in static/js/bs-init.js.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in static/js/script.js.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in static/js/st.min.js.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in templates/base.html.
The file will have its original line endings in your working directory
warning: LF will be replaced by CRLF in templates/index.html.
The file will have its original line endings in your working directory

C:\Users\vinut\OneDrive\Desktop\Richa>git commit -m "initial commit"
Author Identity unknown

*** Please tell me who you are.

Run

  git config --global user.email "you@example.com"
  git config --global user.name "Your Name"

to set your account's default identity.
```

```
CA\Windows\System32\cmd.exe
to set your account's default identity.
Omit --global to set the identity only in this repository.

fatal: unable to auto-detect email address (got 'vinut@LAPTOP-50L1TGSA.(none)')

C:\Users\vinut\OneDrive\Desktop\Richa>git config --global user.email "rs7271087@gmail.com"

C:\Users\vinut\OneDrive\Desktop\Richa>git commit -m "initial commit"
[master (root-commit) 1468f8b] initial commit
20 files changed, 2913 insertions(+)
create mode 100644 Procfile
create mode 100644 __pycache__/app.cpython-39.pyc
create mode 100644 app.py
create mode 100644 initial_database.db
create mode 100644 requirements.txt
create mode 100644 static/css/st.min.css
create mode 100644 static/fonts/fontawesome.otf
create mode 100644 static/fonts/font-awesome.min.css
create mode 100644 static/fonts/fontawesome-webfont.eot
create mode 100644 static/fonts/fontawesome-webfont.svg
create mode 100644 static/fonts/fontawesome-webfont.ttf
create mode 100644 static/fonts/fontawesome-webfont.woff
create mode 100644 static/fonts/fontawesome-webfont.woff2
create mode 100644 static/img/logo.jpeg
create mode 100644 static/img/rocket_logo.jpeg
create mode 100644 static/js/bs-init.js
create mode 100644 static/js/script.js
create mode 100644 static/js/st.min.js
create mode 100644 templates/base.html
create mode 100644 templates/index.html

C:\Users\vinut\OneDrive\Desktop\Richa>heroku login
Warning: Our terms of service have changed: https://dashboard.heroku.com/terms-of-service
heroku: Press any key to open up the browser to login or q to exit:
Opening browser to https://cli-auth.heroku.com/auth/cli/browser/469808b4-59ed-43e8-98ea-e875f5eed394?requestor=SFMyNTY.g2gDbQAAAA0xNTcuNTEuMTU0bgVAUctkFXBBYgABUYA.A0t1z
eg1Uz_GwxcD2pkJfMqYIO-0n09N2LVqHP3a5pk
Logging in... done
logged in as rs7271087@gmail.com

C:\Users\vinut\OneDrive\Desktop\Richa>heroku git:remote -a richa-task-manager
Warning: heroku update available from 7.53.0 to 7.59.1.
```

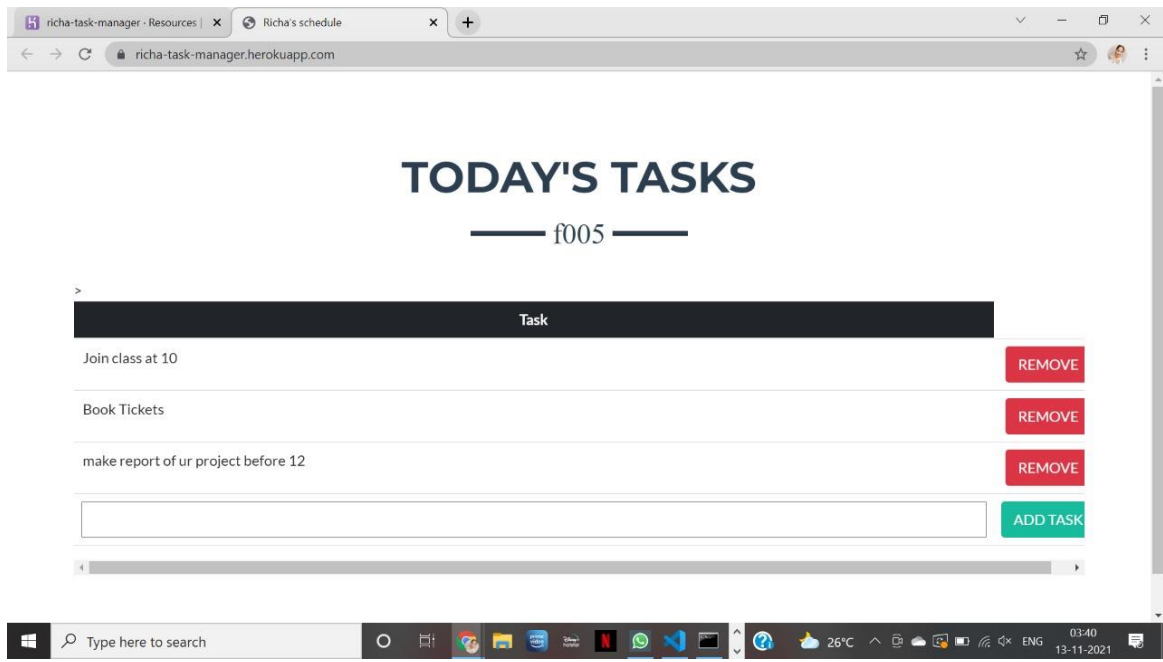
```
CAWindows\System32\cmd.exe
Warning: heroku update available from 7.53.0 to 7.59.1.
set git remote heroku to https://git.heroku.com/richa-task-manager.git

C:\Users\vinut\OneDrive\Desktop\Richa>git push heroku master
Enumerating objects: 29, done.
Counting objects: 100% (29/29), done.
Delta compression using up to 8 threads
Compressing objects: 100% (26/26), done.
Writing objects: 100% (29/29), 632.71 KiB | 6.59 MiB/s, done.
Total 29 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Compressing source files... done.
remote: Building source:
remote:
remote: ----> Building on the Heroku-20 stack
remote: ----> Determining which buildpack to use for this app
remote: ----> Python app detected
remote: ----> No Python version was specified. Using the buildpack default: python-3.9.8
remote: To use a different version, see: https://devcenter.heroku.com/articles/python-runtimes
remote: ----> Installing python-3.9.8
remote: ----> Installing pip 21.3.1, setuptools 57.5.0 and wheel 0.37.0
remote: ----> Installing SQLite3
remote: ----> Installing requirements with pip
remote: Collecting flask
remote:   Downloading Flask-2.0.2-py3-none-any.whl (95 kB)
remote: Collecting gunicorn
remote:   Downloading gunicorn-20.1.0-py3-none-any.whl (79 kB)
remote: Collecting flask_sqlalchemy
remote:   Downloading Flask_SQLAlchemy-2.5.1-py2.py3-none-any.whl (17 kB)
remote: Collecting bootstrap_flask
remote:   Downloading Bootstrap_Flask-1.8.0-py2.py3-none-any.whl (1.5 MB)
remote: Collecting Jinja2>=3.0
remote:   Downloading Jinja2-3.0.3-py3-none-any.whl (133 kB)
remote: Collecting itsdangerous>=2.0
remote:   Downloading itsdangerous-2.0.1-py3-none-any.whl (18 kB)
remote: Collecting Werkzeug>=2.0
remote:   Downloading Werkzeug-2.0.2-py3-none-any.whl (288 kB)
remote: Collecting click>=7.1.2
remote:   Downloading click-8.0.3-py3-none-any.whl (97 kB)
remote: Collecting SQLAlchemy>=0.8.0
remote:   Downloading SQLAlchemy-1.4.27-cp39-cp39-manylinux_2_5_x86_64.manylinux1_x86_64.manylinux_2_17_x86_64.manylinux2014_x86_64.whl (1.6 MB)
remote: Collecting MarkupSafe>=2.0
```

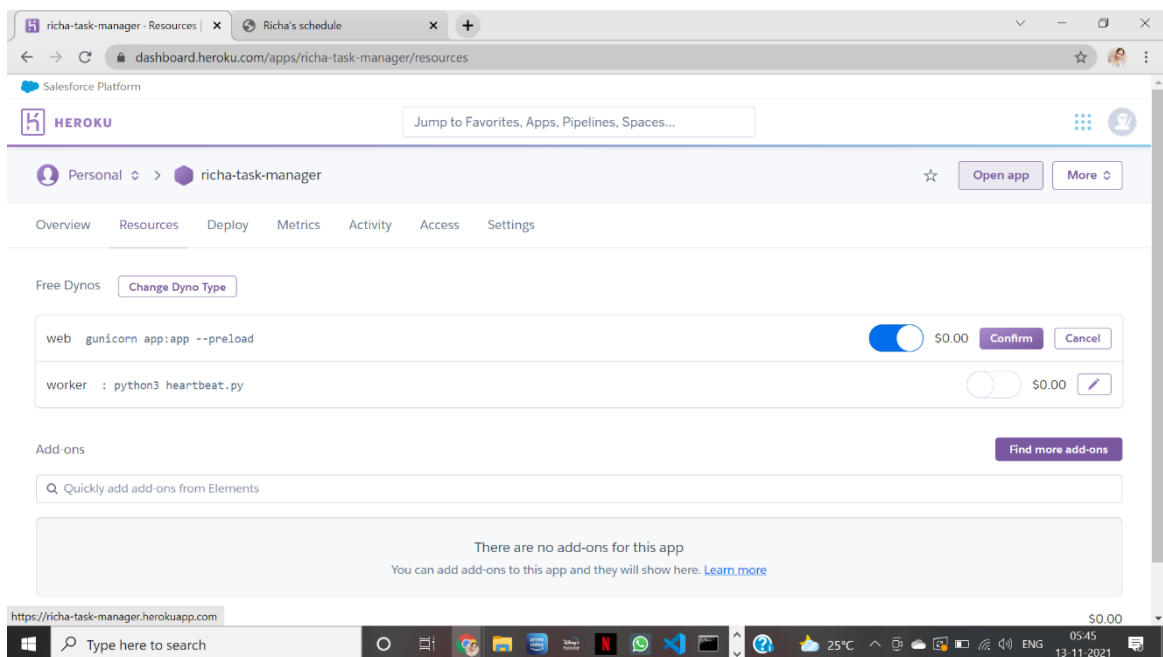
```
CAWindows\System32\cmd.exe
remote: Collecting MarkupSafe>=2.0
remote:   Downloading MarkupSafe-2.0.1-cp39-cp39-manylinux_2_5_x86_64.manylinux1_x86_64.manylinux_2_12_x86_64.manylinux2010_x86_64.whl (30 kB)
remote: Collecting greenlet<=0.4.17
remote:   Downloading greenlet-1.1.2-cp39-cp39-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (153 kB)
remote: Installing collected packages: MarkupSafe, Werkzeug, Jinja2, itsdangerous, greenlet, click, SQLAlchemy, flask, gunicorn, flask-sqlalchemy, bootstrap-flask
remote: Successfully installed Jinja2-3.0.3 MarkupSafe-2.0.1 SQLAlchemy-1.4.27 Werkzeug-2.0.2 bootstrap-flask-1.8.0 click-8.0.3 flask-2.0.2 flask-sqlalchemy-2.5.1 gr
reenlet-1.1.2 gunicorn-20.1.0 itsdangerous-2.0.1
remote: ----> Discovering process types
remote: Procfile declares types -> web, worker
remote:
remote: ----> Compressing...
remote: Done: 62.2M
remote: ----> Launching...
remote: Released v3
remote: https://richa-task-manager.herokuapp.com/ deployed to Heroku
remote:
remote: Verifying deploy... done.
To https://git.heroku.com/richa-task-manager.git
 * [new branch] master -> master

C:\Users\vinut\OneDrive\Desktop\Richa>git push heroku master_
```

Output:



Cloud platform:



REFERENCES:

Books and references

<https://cloud.google.com/docs/>
<https://www.qwiklabs.com/>

<https://www.google.com>
<https://www.geeksforgeeks.org>
www.wikipedia.org/html
www.wikipedia.org/css
<https://www.heroku.com>
www.tutorialspointsg.com
<https://heroku.com/>