University of Windsor

COMP 8347

Internet Applications and Distributed Systems

Lab 3

Submitted to:

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May 29, 2023

Submitted By:

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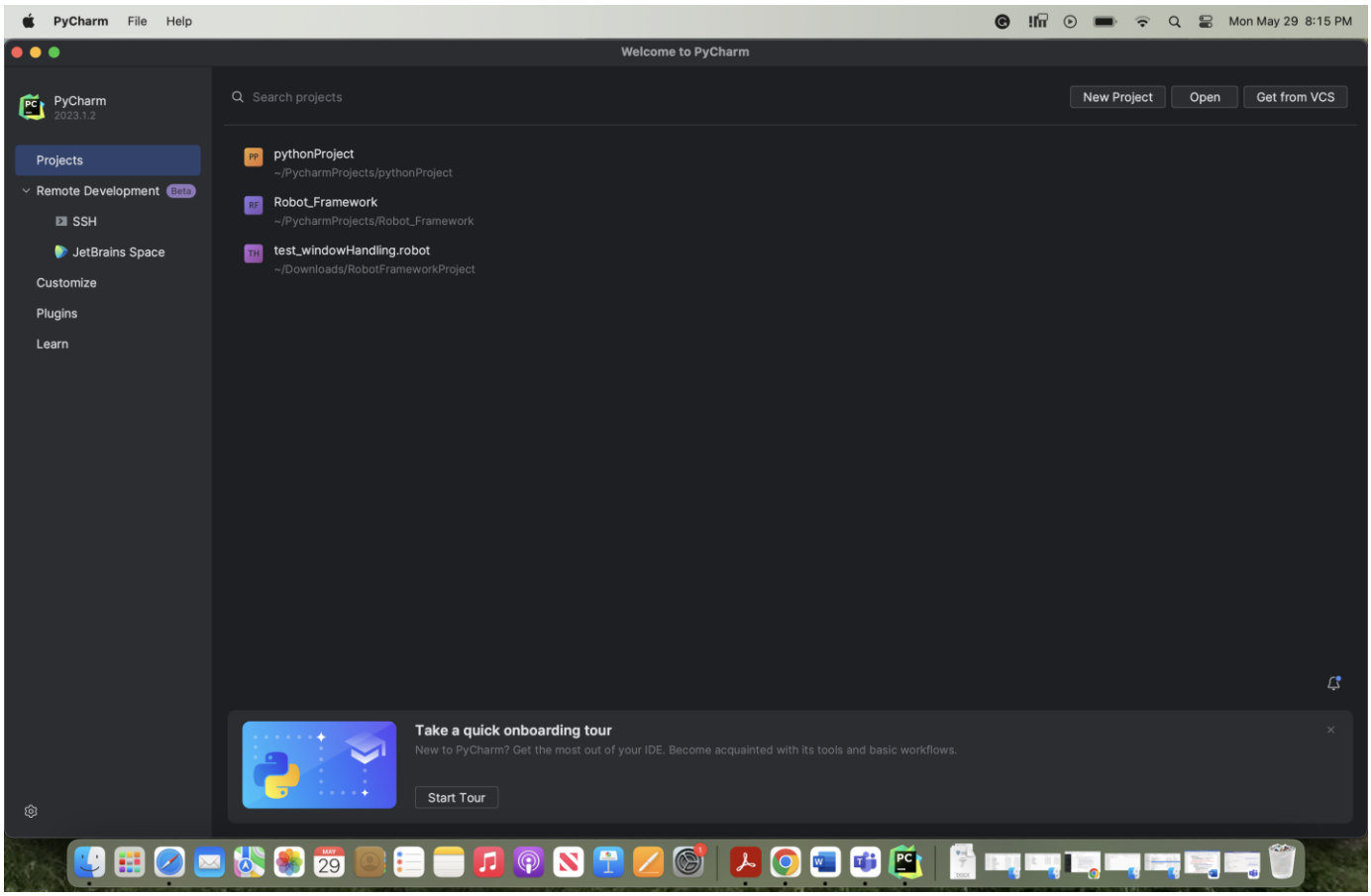
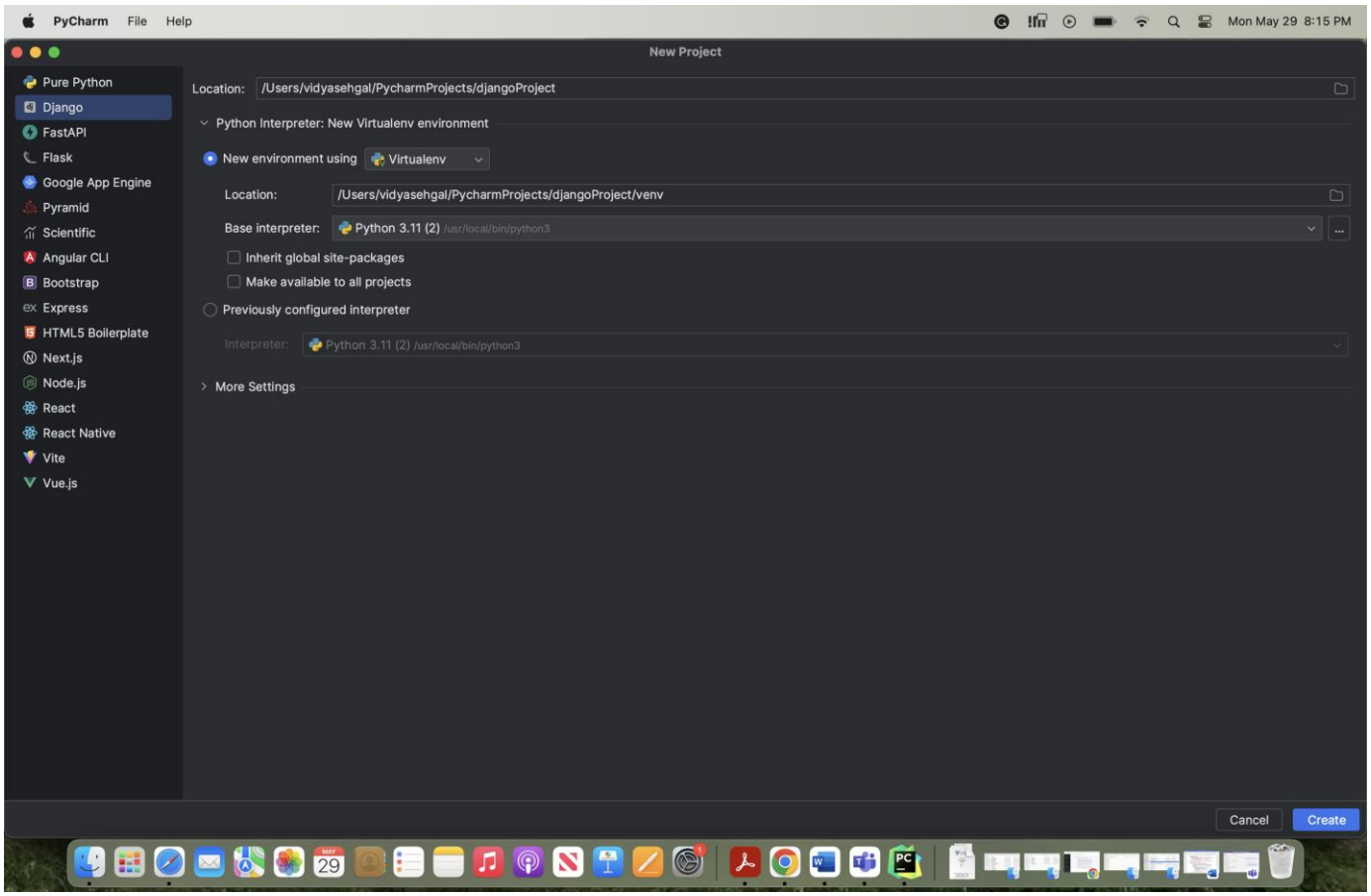
Part1

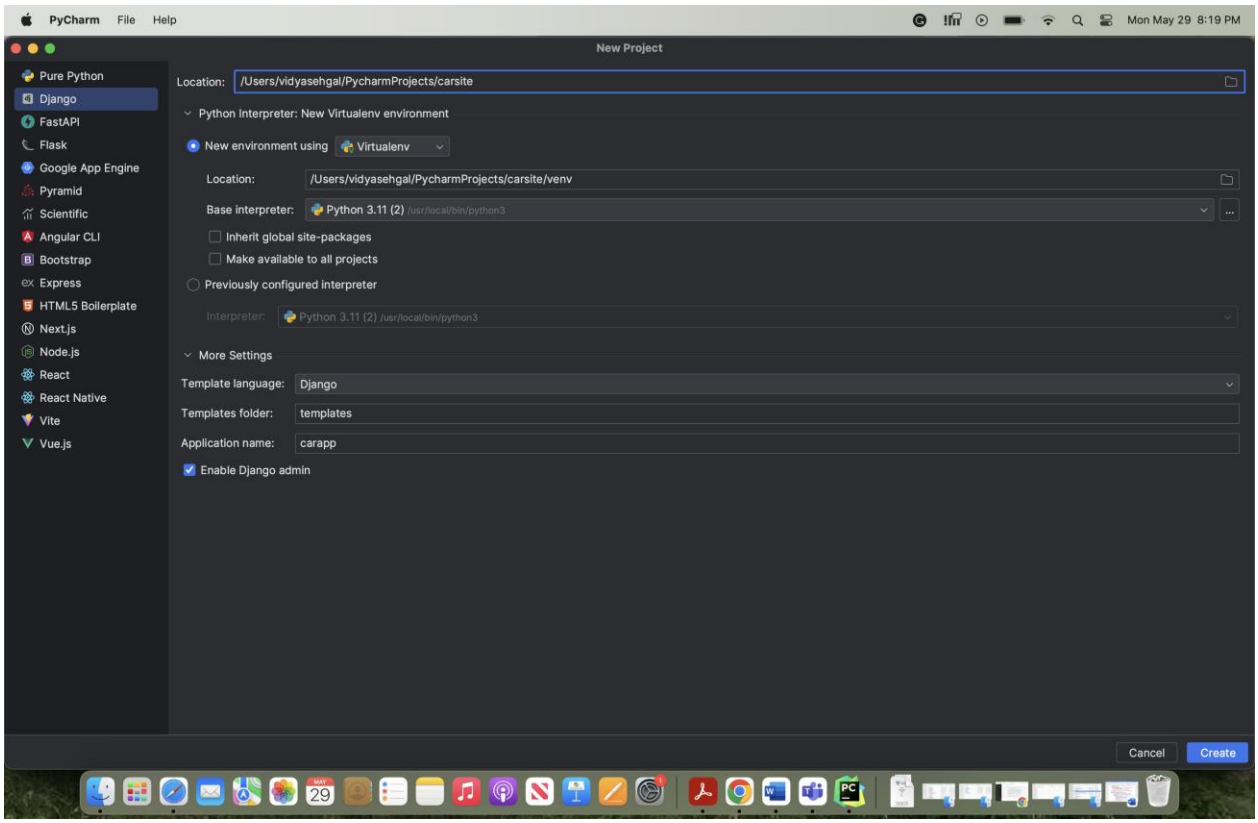
Install necessary software, Python, Django, and PyCharm

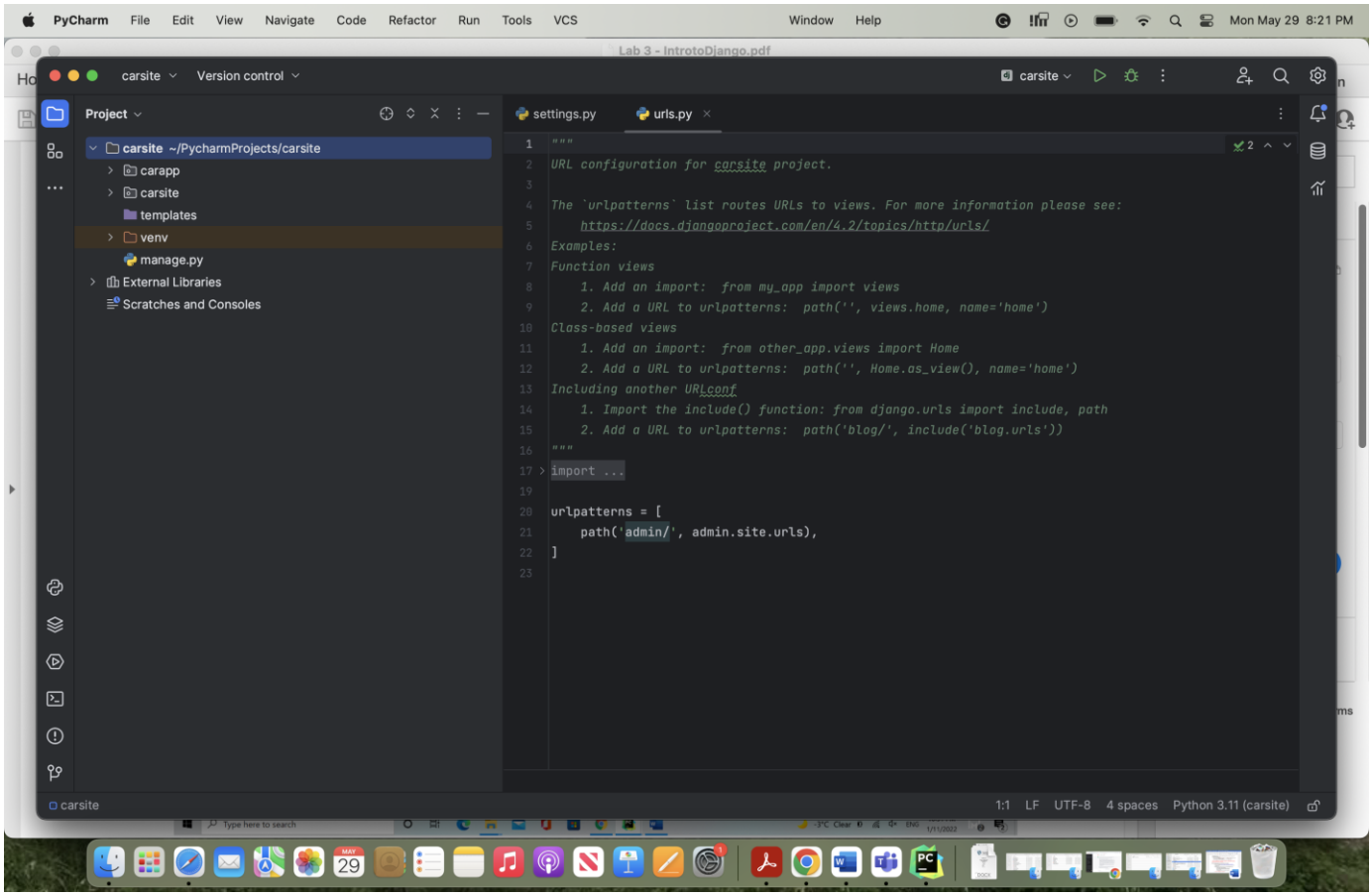
Follow the setup instructions given in the installation guide for Python, Django, and PyCharm for Windows/MAC OS X. The guides are available on Brightspace.

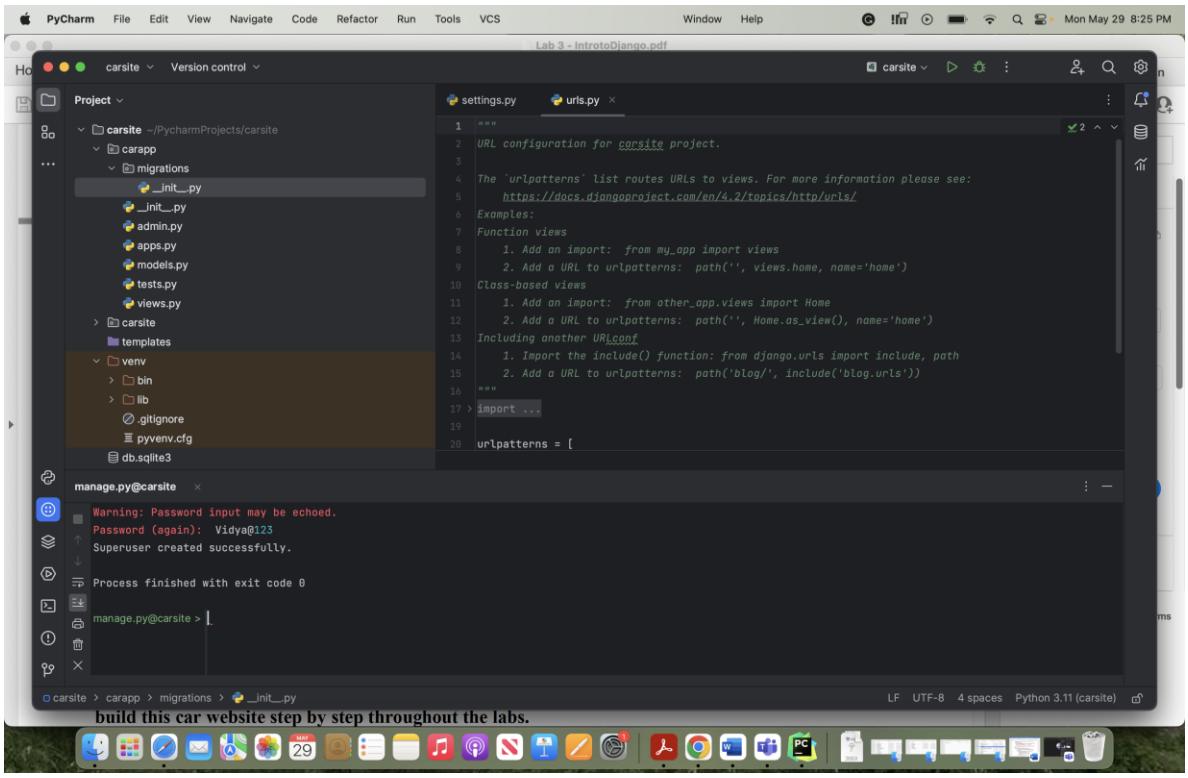
PART 1: Run Django from PyCharm



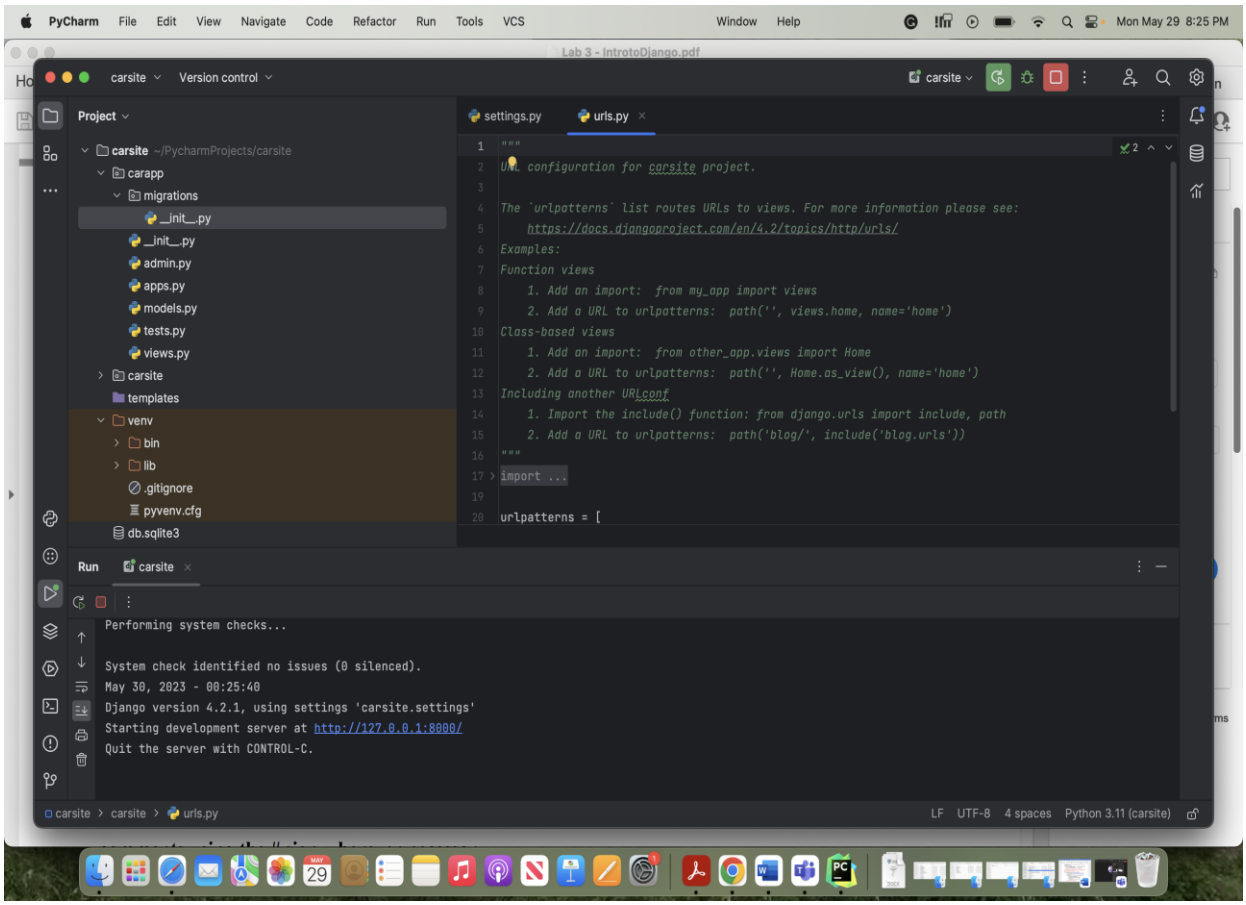

PyCharm File Help
Mon May 29 8:15 PM
New Project
Pure Python
Django
FastAPI
Flask
Google App Engine
Pyramid
Scientific
Angular CLI
Bootstrap
Express
HTML5 Boilerplate
Next.js
Node.js
React
React Native
Vite
Vue.js
Location: /Users/vidyasehgal/PycharmProjects/djangoProject
Python Interpreter: New Virtualenv environment
New environment using Virtualenv
Location: /Users/vidyasehgal/PycharmProjects/djangoProject/venv
Base interpreter: Python 3.11 (2) /usr/local/bin/python3
Inherit global site-packages
Make available to all projects
Previously configured interpreter
Interpreter: Python 3.11 (2) /usr/local/bin/python3
More Settings
Cancel
Create

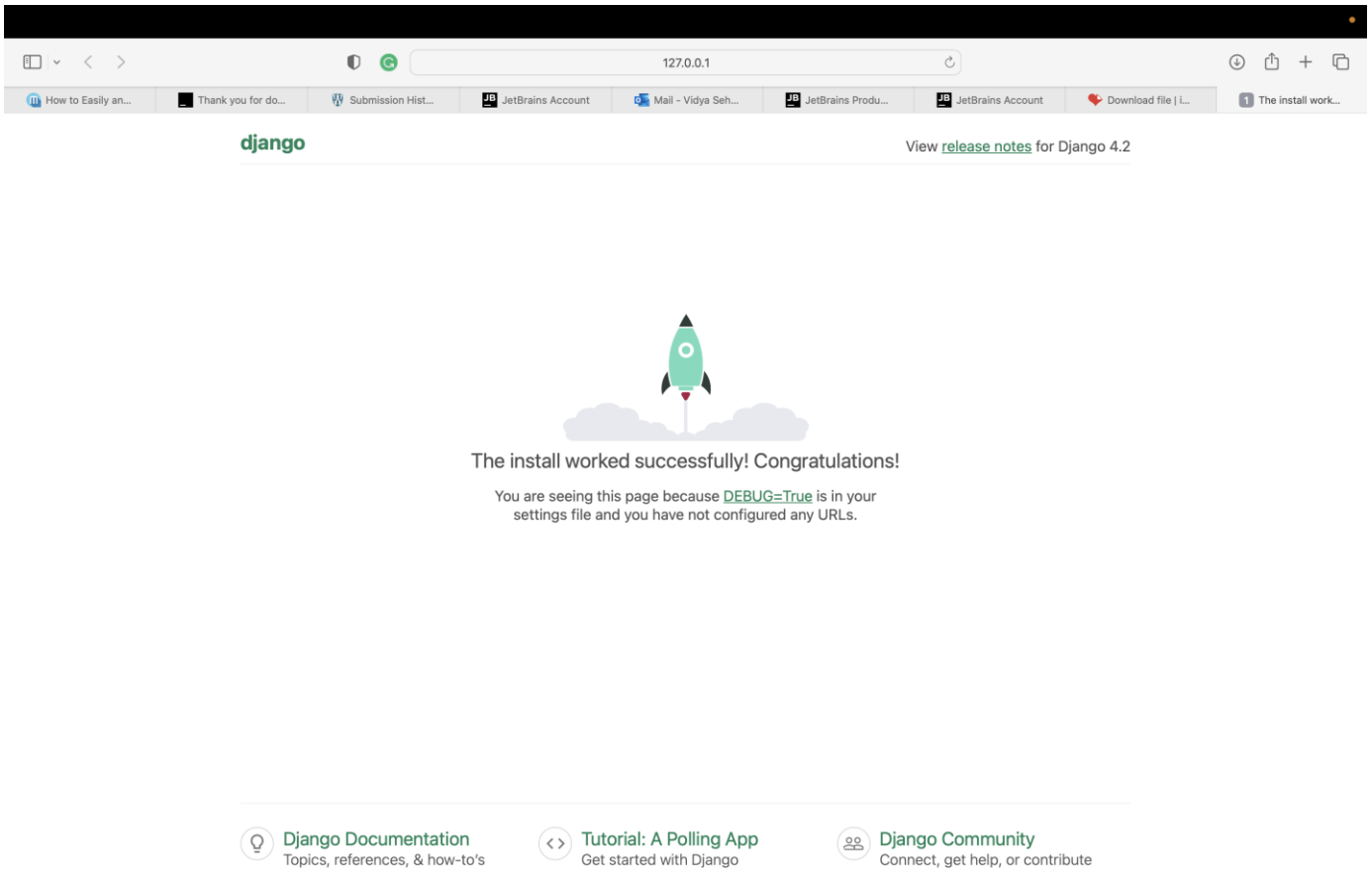

PyCharm File Help
Mon May 29 8:19 PM
New Project
Pure Python
Django
FastAPI
Flask
Google App Engine
Pyramid
Scientific
Angular CLI
Bootstrap
Express
HTML5 Boilerplate
Next.js
Node.js
React
React Native
Vite
Vue.js
Location: /Users/vidyasehgal/PycharmProjects/carsite
Python Interpreter: New Virtualenv environment
New environment using Virtualenv
Location: /Users/vidyasehgal/PycharmProjects/carsite/venv
Base interpreter: Python 3.11 (2) /usr/local/bin/python3
Inherit global site-packages
Make available to all projects
Previously configured interpreter
Interpreter: Python 3.11 (2) /usr/local/bin/python3
More Settings
Template language: Django
Templates folder: templates
Application name: carapp
Enable Django admin
Cancel
Create





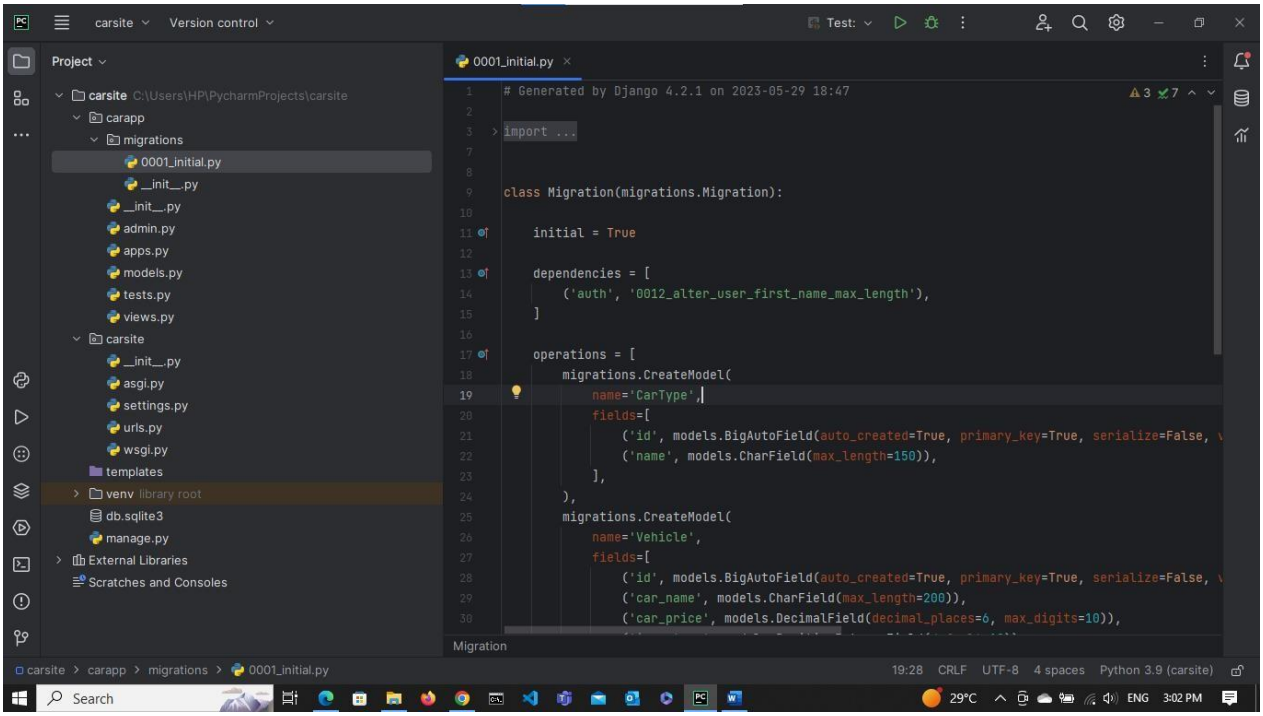
build this car website step by step throughout the labs.


PyCharm File Edit View Navigate Code Refactor Run Tools VCS Window Help Mon May 29 8:25 PM
carsite Version control
Project
carsite ~/PycharmProjects/carsite
carapp
migrations
__init__.py
__init__.py
admin.py
apps.py
models.py
tests.py
views.py
carsite
templates
venv
bin
lib
.gitignore
pyvenv.cfg
db.sqlite3
settings.py
urls.py
"""
URL configuration for carsite project.
The `urlpatterns` list routes URLs to views. For more information please see:
https://docs.djangoproject.com/en/4.2/topics/http/urls/
Examples:
Function views
1. Add an import: from my_app import views
2. Add a URL to urlpatterns: path('', views.home, name='home')
Class-based views
1. Add an import: from other_app.views import Home
2. Add a URL to urlpatterns: path('', Home.as_view(), name='home')
Including another URLconf
1. Import the include() function: from django.urls import include, path
2. Add a URL to urlpatterns: path('blog/', include('blog.urls'))
"""
import ...
urlpatterns = [
Run carsite
Performing system checks...
System check identified no issues (0 silenced).
May 30, 2023 - 08:25:40
Django version 4.2.1, using settings 'carsite.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.
carsite carsite urls.py
LF UTF-8 4 spaces Python 3.11 (carsite)



Part 2

3. Below screenshot shows the 0001_initial.py and database fields. Attached model1.py with this submission contains code for carsite app.



Below fields are primary key in the file :

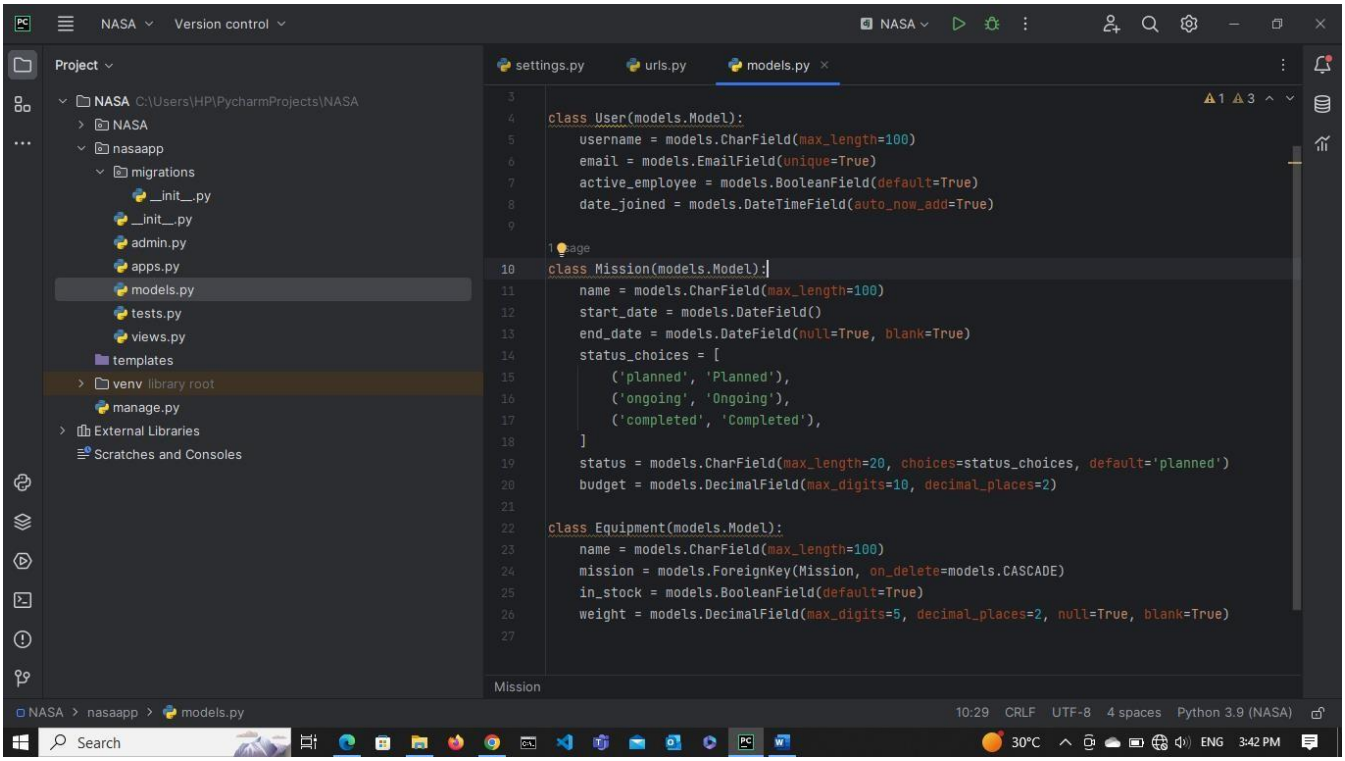
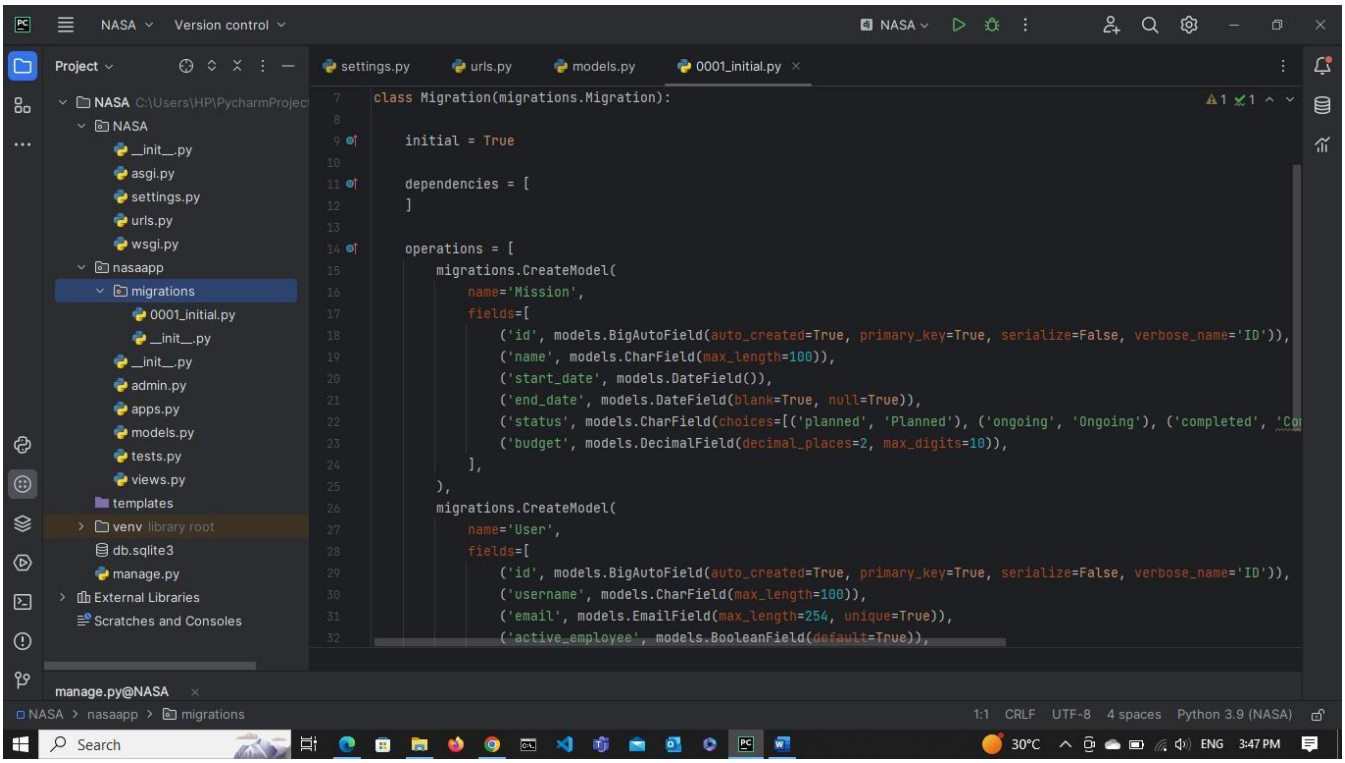
- In Class “CarType” field “id”
- In Class “Vehicle” field “id”
- In Class “Buyer” field “user_ptr”

Below field is the foreign key :

- In class “Vehicle” field “car_type”. This field in class Vehicle is made foreign key and related to CarType class.

Part 3

- Attached file model2.py contains classes for NASA application.
- It contains 3 classes:
  - “User” containing information of employee with fields “username”, “email”, “active_employee”, “date_joined”
  - “Mission” containing information regarding the projects with field “name”,”start_date”, “end_date”, “status”, “budget”
  - “Equipment” containing information about tools used in the Mission. This also contains foreign key “mission” which related to “Mission” class. Other fields include “name”, “in_stock”, “weight”.



- All the fields “id” in classes are primary key and “mission” field in “Equipment” class is foreign key which related to “Mission” class.