



Personal Career Manager Software Agent User Guide

Team Name: Team10

Alfred Tay Wenjie, Kenneth Goh Chia Wei, Tan Heng Han, Wang Zilong, Raymond Ng Boon Cheong

NUS-ISS Master of Technology in Intelligent Systems
ISY5001 Machine Reasoning and Reasoning Systems

Contents

USER GUIDE.....	2
Setup:	2
Test Case	5
Walkthrough	7
Workflow without Career Aspiration.....	7
Workflow with Career Aspiration	10

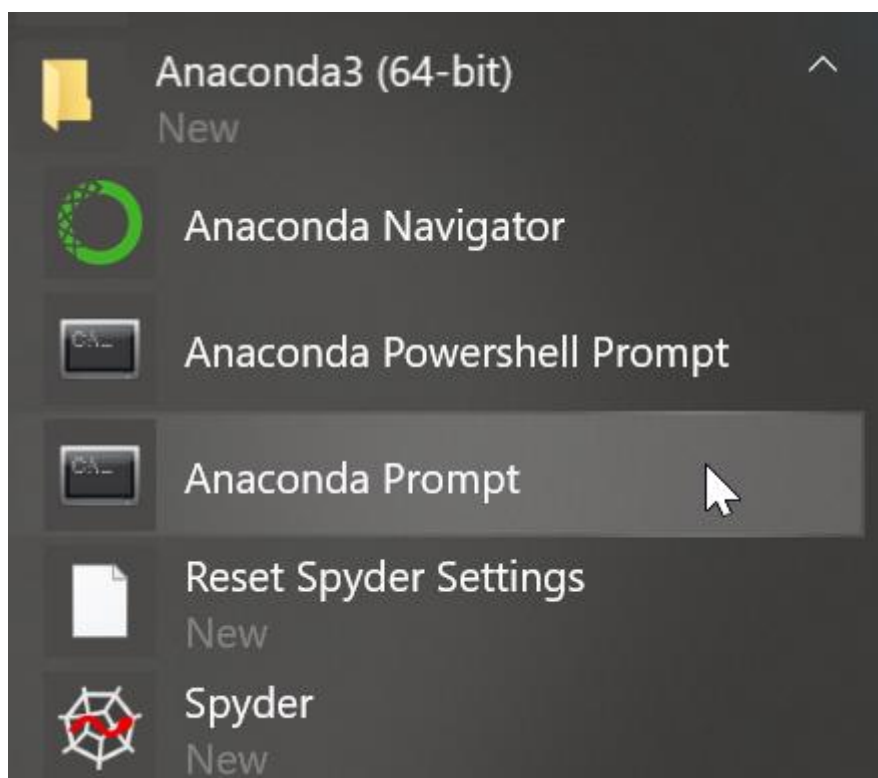
USER GUIDE

Setup:

Step 1) Clone or download zip from <https://github.com/raymondng76/IRS-MR-RS-2019-07-01-IS1FT-GRP-Team10-LevelUp>

Step 2) Install Anaconda from www.anaconda.org

Step 3) Launch Anaconda prompt from start menu (right click and run as administrator)

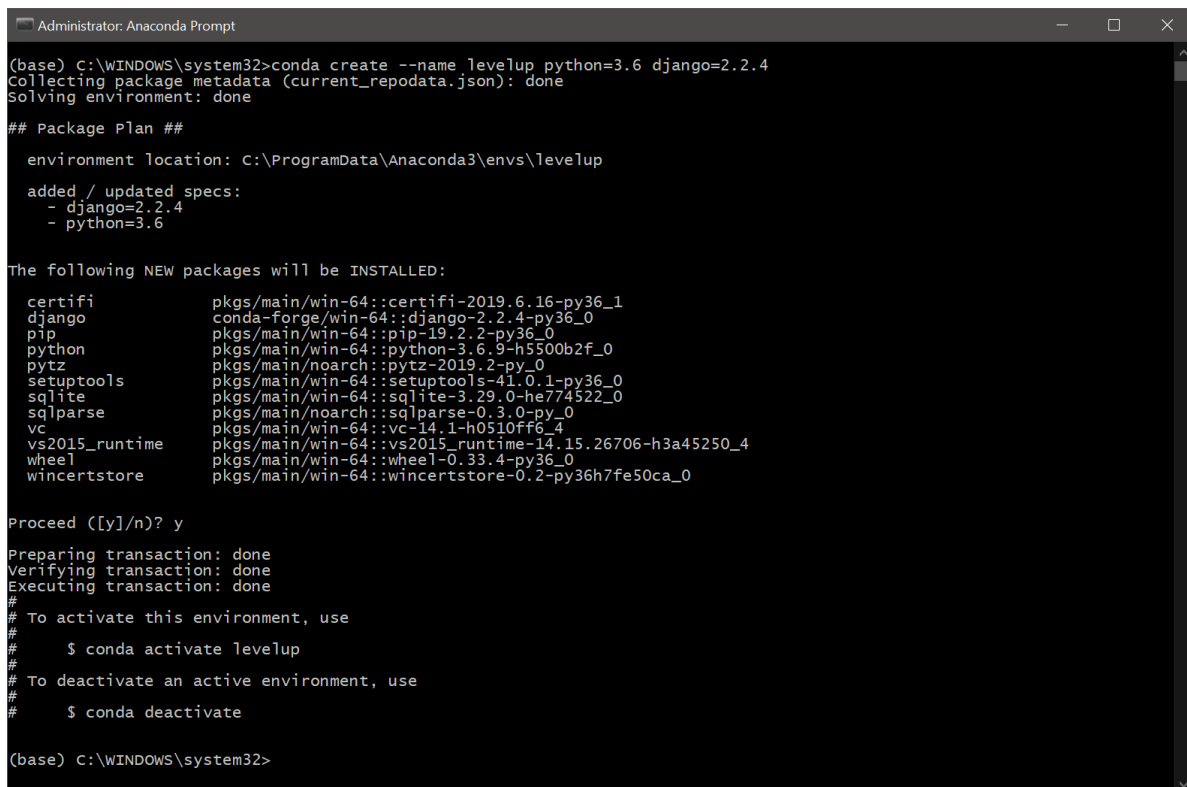


Step 4) From the Anaconda prompt console, enter the following command to add the conda-forge channel to conda.

```
conda config --append channels conda-forge
```

Step5) From the Anaconda prompt console, enter the following command to create a virtual environment.

conda create --name levelup python=3.6 django=2.2.4



```
Administrator: Anaconda Prompt
(base) C:\WINDOWS\system32>conda create --name levelup python=3.6 django=2.2.4
Collecting package metadata (current_repodata.json): done
Solving environment: done

## Package Plan ##

  environment location: C:\ProgramData\Anaconda3\envs\levelup

added / updated specs:
- django=2.2.4
- python=3.6

The following NEW packages will be INSTALLED:

certifi                pkgs/main/win-64::certifi-2019.6.16-py36_1
conda-forge/win-64::django-2.2.4-py36_0
pip                    pkgs/main/win-64::pip-19.2.2-py36_0
python                 pkgs/main/win-64::python-3.6.9-h5500b2f_0
pytz                   pkgs/main/noarch::pytz-2019.2-py_0
setuptools              pkgs/main/win-64::setuptools-41.0.1-py36_0
sqlite                  pkgs/main/win-64::sqlite-3.29.0-he774522_0
sqlparse                pkgs/main/noarch::sqlparse-0.3.0-py_0
vc                      pkgs/main/win-64::vc-14.1-h0510ff6_4
vs2015_runtime          pkgs/main/win-64::vs2015_runtime-14.15.26706-h3a45250_4
wheel                   pkgs/main/win-64::wheel-0.33.4-py36_0
wincertstore            pkgs/main/win-64::winertstore-0.2-py36h7fe50ca_0

Proceed [y/n]? y
Preparing transaction: done
Verifying transaction: done
Executing transaction: done
#
# To activate this environment, use
#
#   $ conda activate levelup
#
# To deactivate an active environment, use
#
#   $ conda deactivate
#

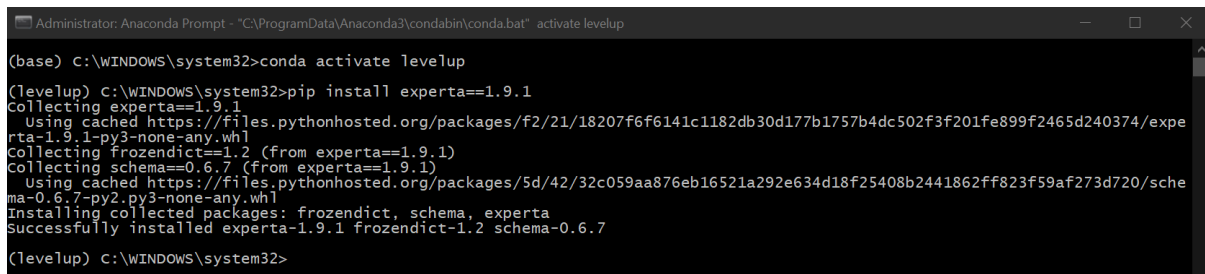
(base) C:\WINDOWS\system32>
```

Step 6) Enter the following command to activate the newly created environment.

conda activate levelup

Step 7) Install **Experta** package with the following command.

pip install experta==1.9.1



```
Administrator: Anaconda Prompt - "C:\ProgramData\Anaconda3\condabin\conda.bat" activate levelup
(base) C:\WINDOWS\system32>conda activate levelup
(levelup) C:\WINDOWS\system32>pip install experta==1.9.1
Collecting experta==1.9.1
  Using cached https://files.pythonhosted.org/packages/f2/21/18207f6f6141c1182db30d177b1757b4dc502f3f201fe899f2465d240374/exp
  rta-1.9.1-py3-none-any.whl
Collecting frozendict==1.2 (from experta==1.9.1)
Collecting schema==0.6.7 (from experta==1.9.1)
  Using cached https://files.pythonhosted.org/packages/5d/42/32c059aa876eb16521a292e634d18f25408b2441862ff823f59af273d720/sche
  ma-0.6.7-py2.py3-none-any.whl
Installing collected packages: frozendict, schema, experta
Successfully installed experta-1.9.1 frozendict-1.2 schema-0.6.7
(levelup) C:\WINDOWS\system32>
```

Step 8) Install Django-Widget-Tweaks package with the following command.

pip install Django-widget-tweaks

Step 9) Navigate to the **IRS-MR-RS-2019-07-01-IS1FT-GRP-Team10-LevelUp\SystemCode\Level_Up** folder of the cloned Github project.

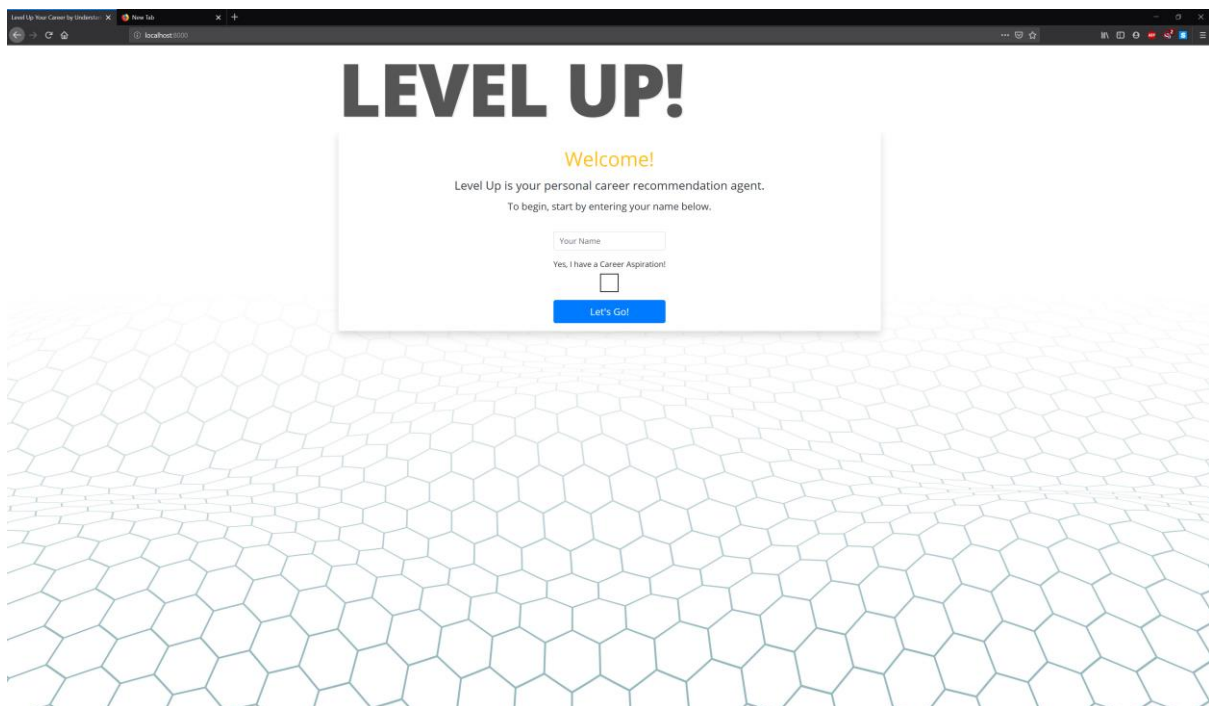
Step 10) Enter the following command to start the Django server.

python manage.py runserver

```
Anaconda Prompt - "C:\ProgramData\Anaconda3\condabin\conda.bat" activate levelup - python manage.py runserver
(levelup) D:\Workspace\GitHub\IRS-CS-2019-07-29-ISIFT-GRP-TeamName-LevelUp\SystemCode\Level_Up_Chatbot>python m
manage.py runserver
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
August 24, 2019 - 11:00:33
Django version 2.2.4, using settings 'Level_Up.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
```

Step 11) Open any web browser and navigate to <http://localhost:8000> to visit the project home page.



Note:

- For repeated testing, please launch a new browser tab and navigate to <http://localhost:8000> or click on the **LEVEL UP!** banner at the top of the page to go back to the landing page.
- For repeated testing, a new user name is required.

Test Case

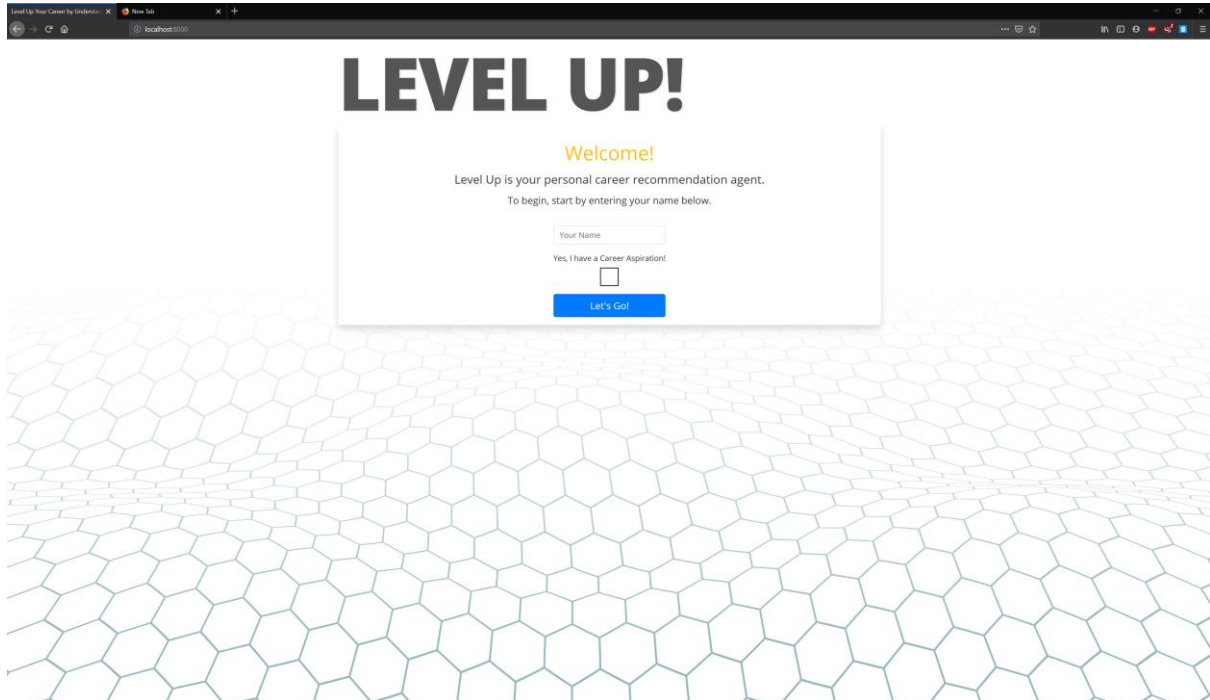
Test ID	Test case	Test case description	Test Step	Test Step Description	Expected Result
			Pre-Condition	Ensure django web server is started	The Level Up Career Recommendation site launched successfully
1	Validate career path availability	Test if there is available career path from initial career position to desired end goal	Step 1	Key in your name in the main page, put a tick on the checkbox and click Let's go	User details are requested on the subsequent webpage
			Step 2	Fill up user details (e.g., Highest education level: Bachelor Degree , YearsExp: 1 , Current work position: Software Engineer , Tick the checkbox for management role preference) and click submit	Career aspiration is requested
			Step 3	Select Software Director as the aspired career goal and click submit	User skills information is requested
			Step 4	Select C as skill 1 and click submit	Career path is returned, expected to see the best career path as such: Software Engineer, Solution Architect, Senior Software Manager, Software Director

2	Validate personality test functionality	Examine if personality test is returned when career aspiration is unchecked	Step 1	Key in your name in the main page, untick the checkbox and click Let's go	User details are requested on the subsequent webpage
			Step 2	Fill up user details (e.g., Highest education level: Bachelor Degree , YearsExp: 1 , Current work position: Software Engineer , Tick the checkbox for management role preference) and click submit	Personality test is returned
3	Validate career end point recommendation	Test if career end points are proposed after completing the personality test	Step 1	Follow Test ID 2 and select the first answer for all 20 questions and click submit	Career End Point is proposed. Expected to see 3 suggested positions: Senior Director, Senior Sales Director, Senior Software Director
4	Validate job recommendation	Check if job is recommended	Step 1	Follow Test ID 1	Available job for application is displayed, expected to see MNC Application Consultant (Solution Architect)Java / J2EE / X2 Permanent Opening
5	Validate course recommendation	Check if course is recommended	Step 1	Follow Test ID 1	Available course for application is returned, expected to see a list of suitable courses for registration

Walkthrough

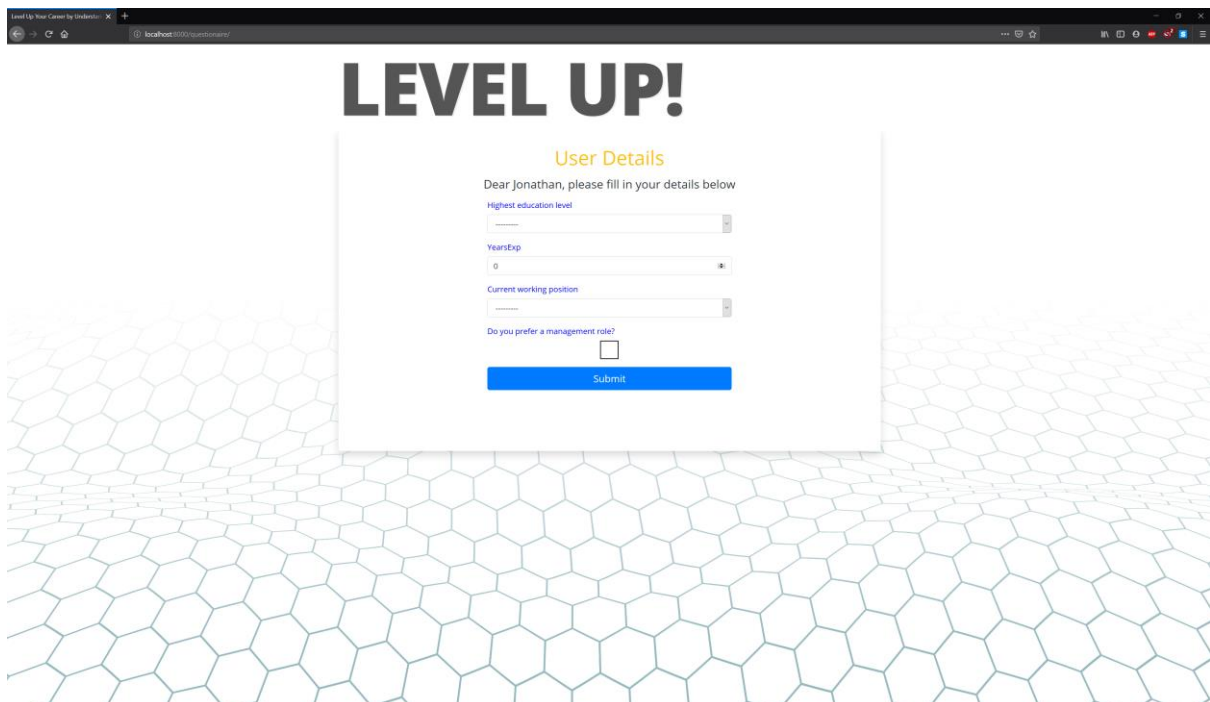
Workflow without Career Aspiration

- 1) Enter your name in the textbox provided and click the 'Let's Go!' button



The screenshot shows a web browser window with the URL `localhost:5500`. The page has a large, bold heading "LEVEL UP!" at the top. Below it, a white card contains the text "Welcome!" in orange, followed by "Level Up is your personal career recommendation agent. To begin, start by entering your name below." There is a text input field labeled "Your Name" and a checkbox labeled "Yes, I have a Career Aspiration:". Below the checkbox is a blue button labeled "Let's Go!". The background of the page is a light blue hexagonal pattern.

- 2) Select education level, current working position and enter your years of working experience. Check the 'Prefer a management role' checkbox per your preference. Click the 'Submit' button once done.



The screenshot shows the same web browser window, but the page has advanced to the "User Details" section. The heading "LEVEL UP!" is still at the top. The white card now contains the text "User Details" in orange, followed by "Dear Jonathan, please fill in your details below". There are four input fields: "Highest education level", "YearsExp", and "Current working position", each with a dropdown arrow. Below these is a checkbox labeled "Do you prefer a management role?". At the bottom of the card is a blue button labeled "Submit". The background remains the light blue hexagonal pattern.

- 3) Fill in your answers for the next two pages (10 questions per page) and click the 'Submit' button once you are done. Please note that all questions must be answered in order to progress to the next page.

LEVEL UP!

Questionnaire - Part 1

Dear Jonathan, please complete the questionnaire below:
(10 of 20)

You feel it's worse to be more

In friendships, you'd rather have

For everyday work, you'd rather

When talking to strangers, you speak

When with other people, you

You take more pride in your

You're more interested in

You prefer to live life more

You do routine tasks

Common sense is more of a

Submit

LEVEL UP!

Questionnaire - Part 2

Dear Jonathan, please complete the questionnaire below:
(20 of 20)

You're more influenced by your

You judge others by

In dealing with others, you're more

In making decisions, what's more comfortable

You'd rather give someone feedback based on

When you make choice, is it

What's worse, having projects

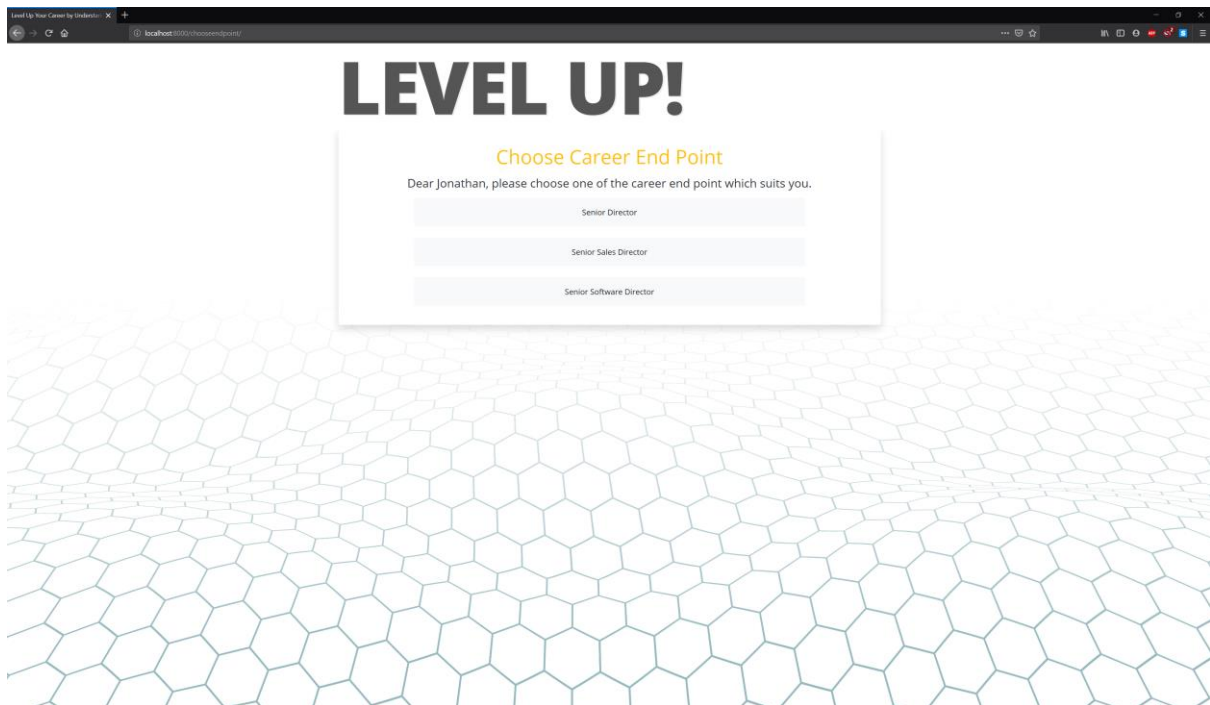
For events, you prefer

When shopping, you get more pleasure from

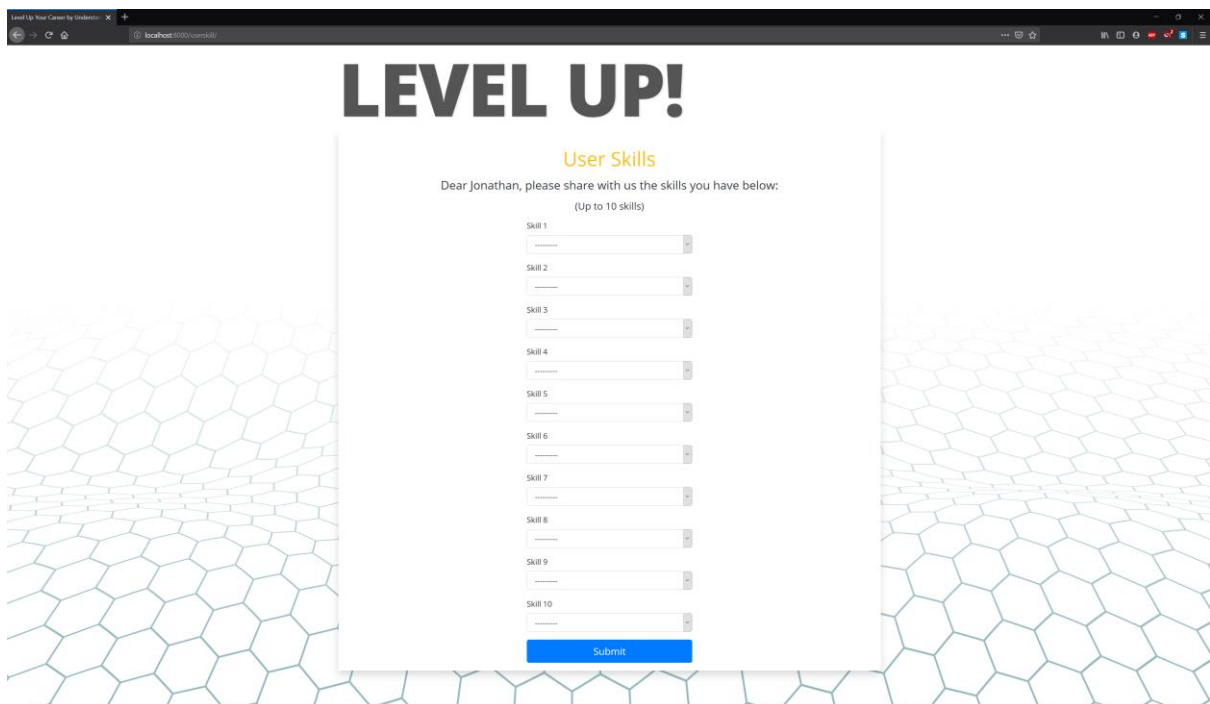
You prefer statements to be

Submit

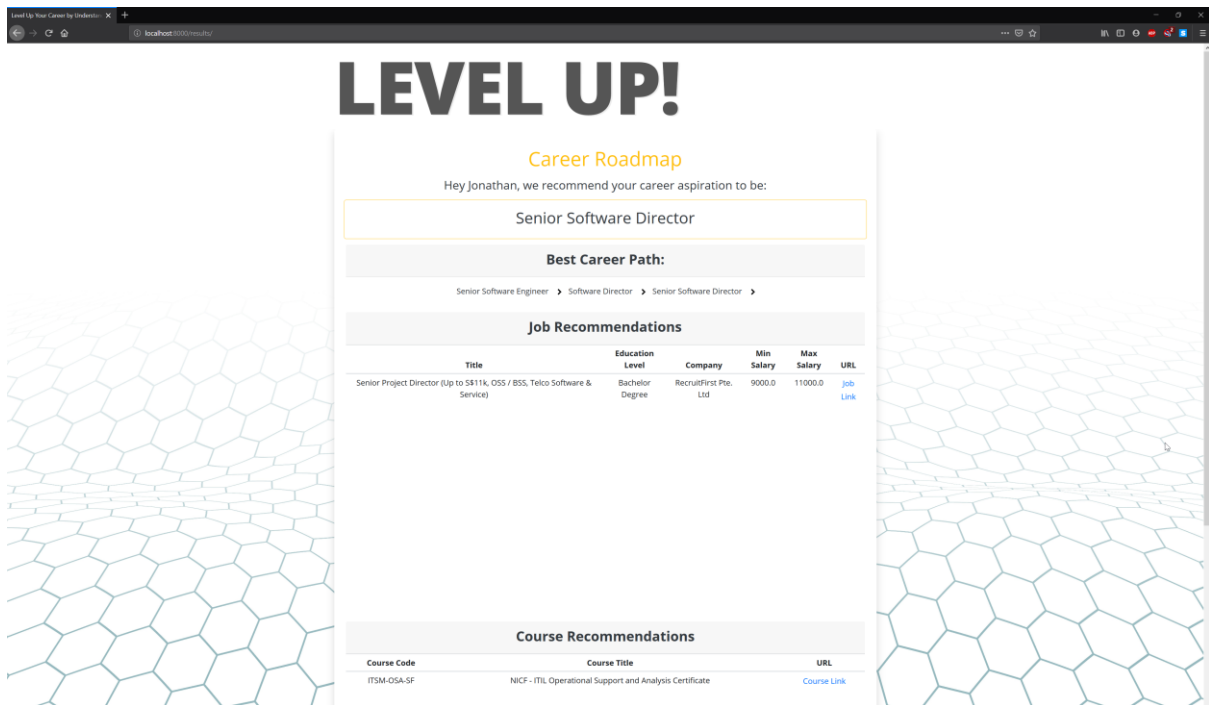
- 4) After submitting all previous questions, 3 possible career end points will be shown, click on the role you think you are most suited to continue.



5) Next fill in your skill sets (up to 10 skills) and click the 'Submit' button.

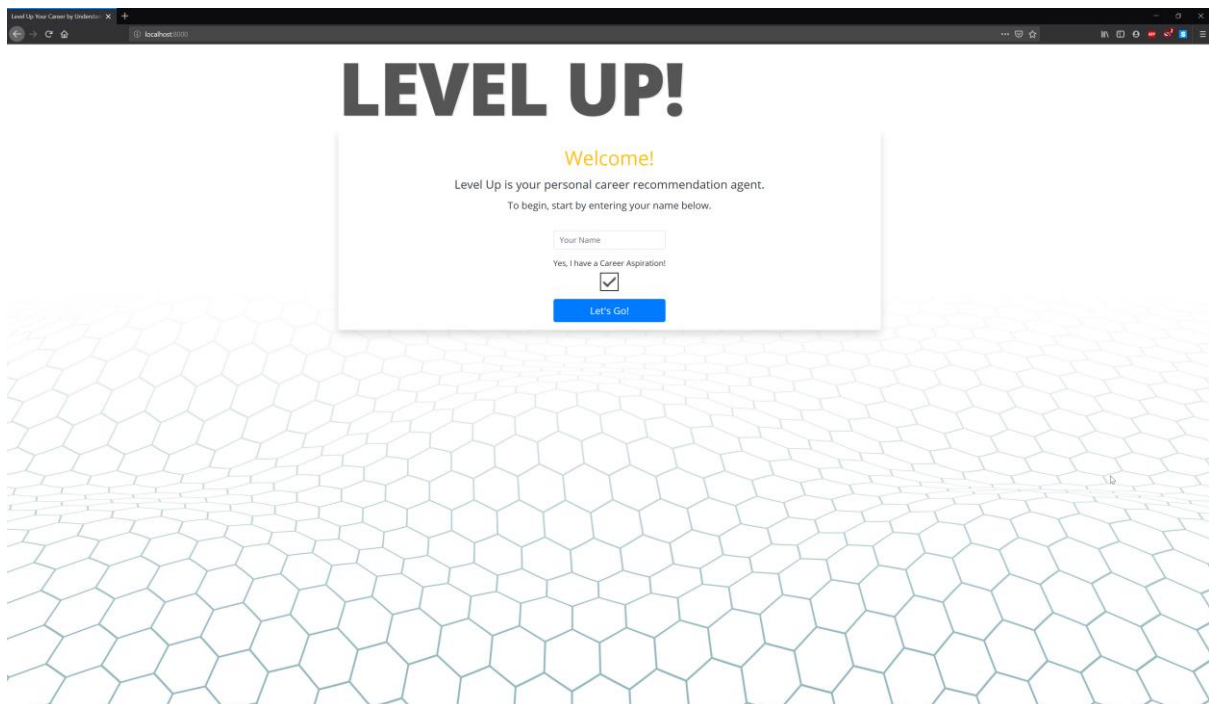


6) The career roadmap will now be shown, showing the best career path, job as well as course recommendations. Click on the respective job and course link to view their respective website.



Workflow with Career Aspiration

- 1) Enter your name in the textbox provided and check the 'Yes, I have a Career Aspiration!' checkbox and click the 'Let's Go!' button



- 2) Select education level, current working position and enter your years of working experience. Check the 'Prefer a management role' checkbox per your preference. Click the 'Submit' button once done.

The screenshot shows a web browser window with the URL `localhost:8000/questionary/`. The page has a large, bold, black header "LEVEL UP!". Below it, the title "User Details" is displayed in orange. The text "Dear Jonathan, please fill in your details below" is followed by four form fields: "Highest education level", "YearsExp", "Current working position", and "Do you prefer a management role?". The last field is a checkbox. A blue "Submit" button is at the bottom of the form. The background features a white hexagonal pattern on a light blue gradient.

LEVEL UP!

User Details

Dear Jonathan, please fill in your details below

Highest education level

YearsExp

Current working position

Do you prefer a management role?

☐

Submit

3) Select your desired career aspiration and click on the 'Submit' button once done.

The screenshot shows a web browser window with the URL `localhost:8000/user/careergoal/`. The page has a large, bold, black header "LEVEL UP!". Below it, the title "Career Goal" is displayed in orange. The text "Dear Jonathan, please select your aspired career goal below" is followed by a single form field labeled "Your aspired career goal". A blue "Submit" button is at the bottom of the form. The background features a white hexagonal pattern on a light blue gradient.

LEVEL UP!

Career Goal

Dear Jonathan, please select your aspired career goal below

Your aspired career goal

Submit

4) Next fill in your skill sets (up to 10 skills) and click the 'Submit' button.

LEVEL UP!

User Skills

Dear Jonathan, please share with us the skills you have below:
(Up to 10 skills)

Skill 1

Skill 2

Skill 3

Skill 4

Skill 5

Skill 6

Skill 7

Skill 8

Skill 9

Skill 10

[Submit](#)

- 5) The career roadmap will now be shown, showing the best career path, job as well as course recommendations. Click on the respective job and course link to view their respective website.

LEVEL UP!

Career Roadmap

Hey Jonathan, we recommend your career aspiration to be:

President

Best Career Path:

Senior Software Engineer > Senior Analyst > Manager > President >

Job Recommendations

Title	Education Level	Company	Min Salary	Max Salary	URL
Treasury Analyst	Bachelor Degree	Pure Search International Pte Ltd	4500.0	6000.0	Job Link
Logistics Analyst (MNC / Up to \$4,500)	Bachelor Degree	Stafflink Services Pte Ltd	3500.0	4500.0	Job Link

Course Recommendations

Course Code	Course Title	URL
ITSM-OSA-SF	NICF - ITIL Operational Support and Analysis Certificate	Course Link