

ALTERNANZA SCUOLA-LAVORO 2018/2019

SUIT



What we've learned during the ASL project



Start of ASL project



C



Git & GitHub



Databases & MySQL



Bootstrap



Vue.js




Web Servers & Apache



Software Timeline

```
raffaele@ubuntu: ~/suit/bin
raffaele@ubuntu:~/suit/bin$ ./suit.exe
1. Print candidates;
2. Print deleted candidates;
3. Search candidate;
4. Add candidate;
5. Remove candidate;
6. Reformat database;
7. Exit
Insert: █
```

CLI



A screenshot of a web browser displaying a candidate management interface. The interface includes a search bar, an 'Add candidate' button, and a table of candidates. The table has columns for First name, Last name, Birth date, Salary, and Actions. The data is as follows:

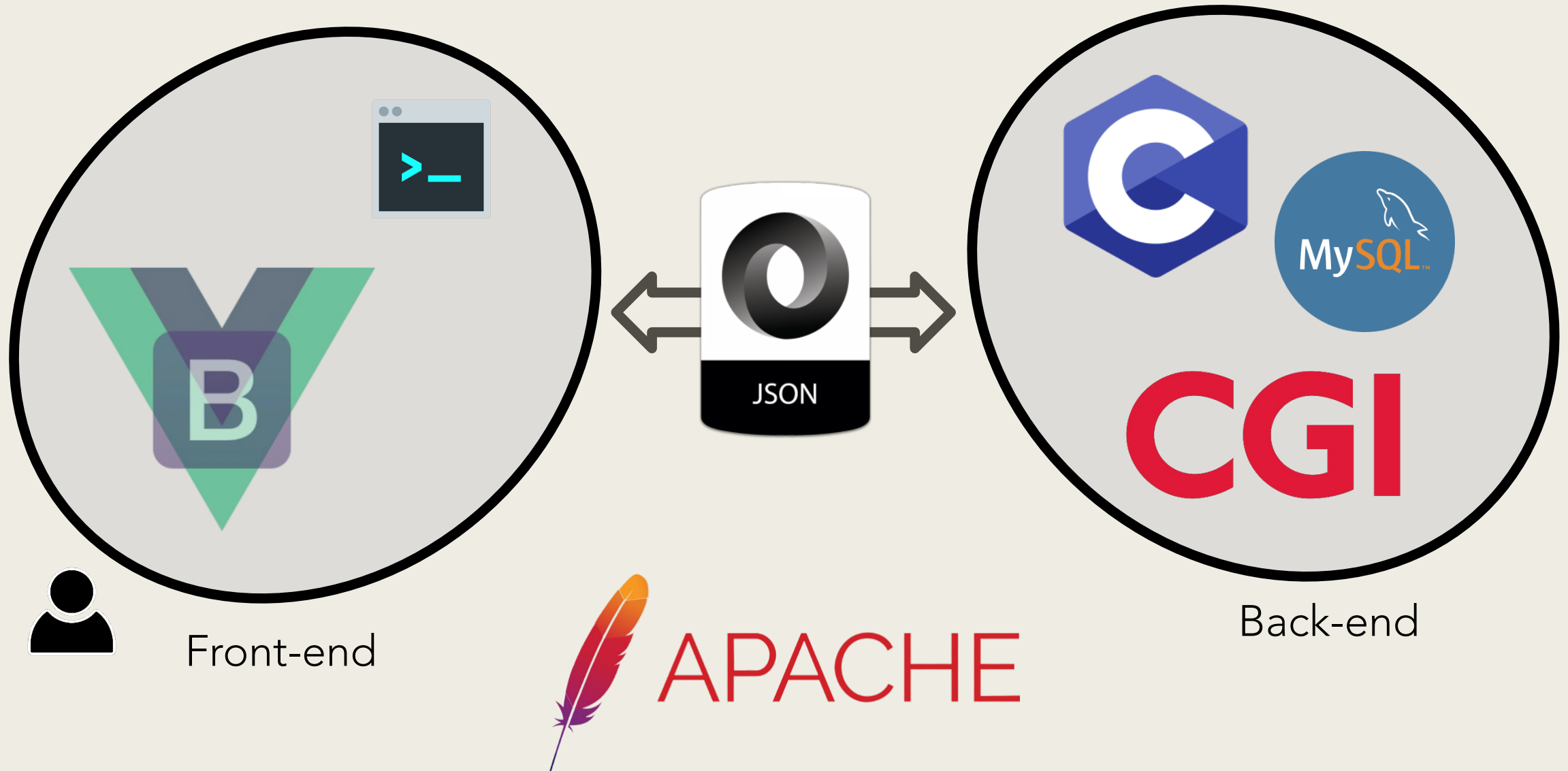
First name	Last name	Birth date	Salary	Actions
Emanuele	Rizzi	2000-01-01	0	[info] [edit] [delete]
Giuseppe	De Santis	2000-01-01	0	[info] [edit] [delete]
Giuseppe	Lepore	2000-01-01	0	[info] [edit] [delete]
Marcello	Tarallo	2000-01-01	25	[info] [edit] [delete]
Martino	Pagano	2000-01-01	0	[info] [edit] [delete]
Raffaele	Del Basso	2000-01-01	150	[info] [edit] [delete]

Bootstrap + Vue GUI

Basic HTML GUI

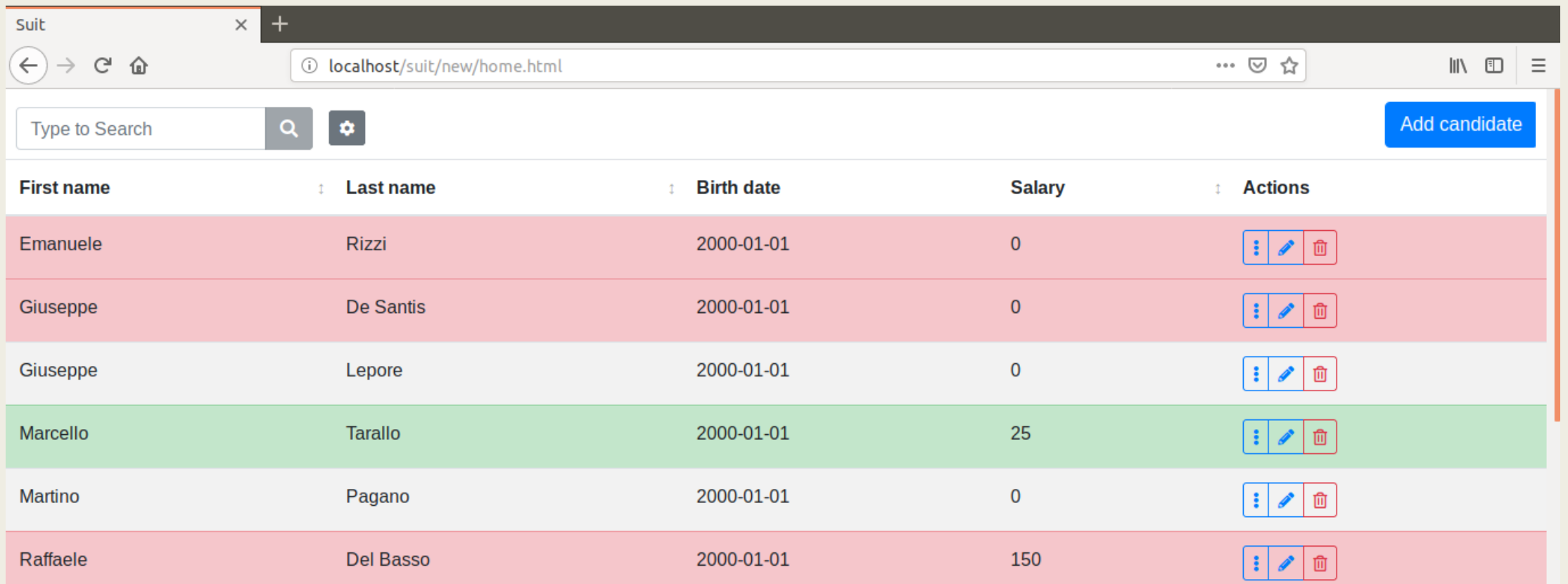


How is it made?





















What is «Suit»?

Suit is our HR management web app that aims to simplify the process of finding and hiring employees.



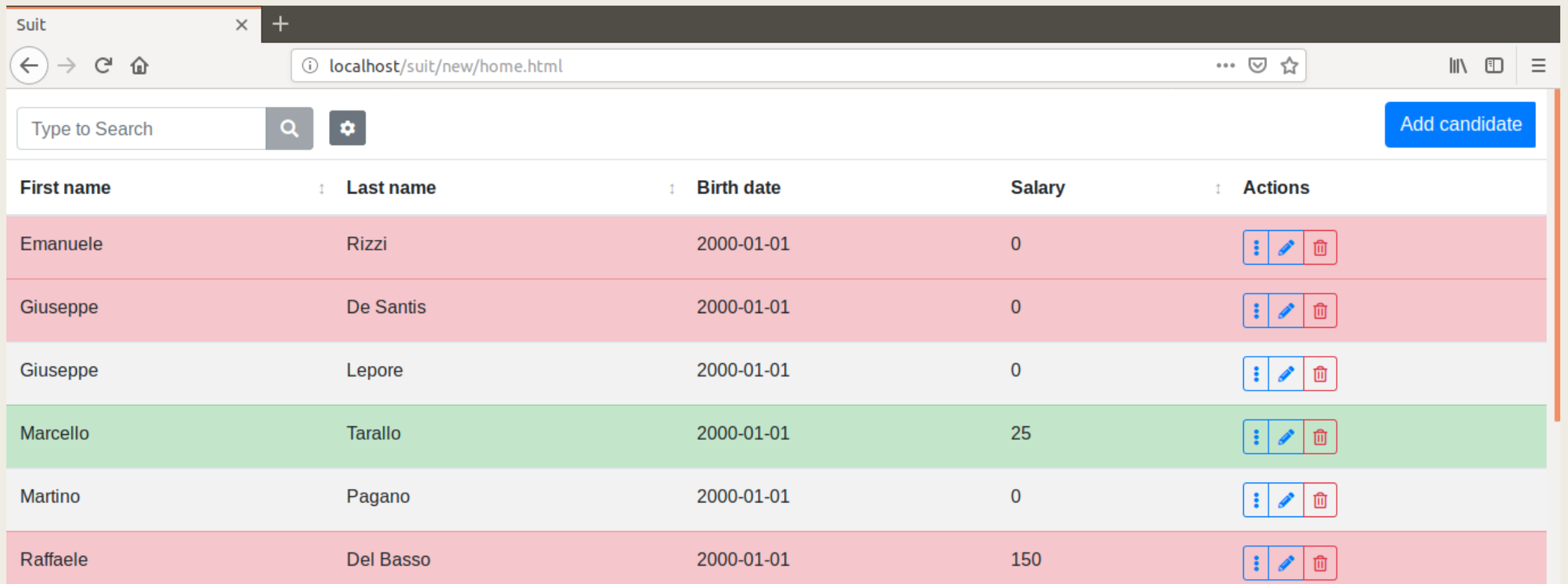
The screenshot shows a web browser window with the address bar displaying 'localhost/suit/new/home.html'. The page features a search bar with the placeholder text 'Type to Search', a settings gear icon, and a blue 'Add candidate' button. Below the search bar is a table with five columns: 'First name', 'Last name', 'Birth date', 'Salary', and 'Actions'. The table contains six rows of candidate data, each with a set of three icons (vertical dots, pencil, and trash) in the 'Actions' column. The rows are color-coded: the first three are pink, the fourth is green, and the last two are pink.

First name	Last name	Birth date	Salary	Actions
Emanuele	Rizzi	2000-01-01	0	  
Giuseppe	De Santis	2000-01-01	0	  
Giuseppe	Lepore	2000-01-01	0	  
Marcello	Tarallo	2000-01-01	25	  
Martino	Pagano	2000-01-01	0	  
Raffaele	Del Basso	2000-01-01	150	  





















How does it work?

The software has a top section which contains the search bar and the filter panel, and the main section which shows the candidates in a table.














The screenshot shows a web browser window with the address bar displaying 'localhost/suit/new/home.html'. The page features a search bar with the placeholder text 'Type to Search' and a magnifying glass icon. To the right of the search bar is a settings gear icon and a blue button labeled 'Add candidate'. Below these elements is a table with five columns: 'First name', 'Last name', 'Birth date', 'Salary', and 'Actions'. The table contains six rows of candidate data, each with a set of three icons (vertical ellipsis, pencil, and trash) in the 'Actions' column. The rows are color-coded: the first three are pink, the fourth is green, and the last two are pink.

First name	Last name	Birth date	Salary	Actions
Emanuele	Rizzi	2000-01-01	0	  
Giuseppe	De Santis	2000-01-01	0	  
Giuseppe	Lepore	2000-01-01	0	  
Marcello	Tarallo	2000-01-01	25	  
Martino	Pagano	2000-01-01	0	  
Raffaele	Del Basso	2000-01-01	150	  



Search and filters • Search bar

The search bar allows you to search for a candidate by first name and last name using the incremental search method (*case insensitive*).

<input type="text" value="c"/>  					Add candidate
First name	Last name	Birth date	Salary	Actions	
Marcello	Tarallo	2000-01-01	25	  	
Roberto	Clemente	2000-01-01	0	  	
Simone	Cacciapaglia	2000-01-01	25	  	



Search and filters • Filters

The following panel allows you to apply and combine filters for a more detailed search.

☐ Show all

☐ Show deleted candidates

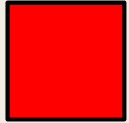
Salary:

Min:

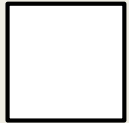
Max:



Rows and candidates












Rejected or hired candidate



Not deleted and not employed candidate



Employed candidate

Roberto	Clemente	2000-01-01	0	  
Simone	Cacciapaglia	2000-01-01	0	  
Simone	Verna	2000-01-01	0	  





Action list • Details

This button allows you to see all the candidate information.

Martino

Pagano

2000-01-01

0

Raffaele

Del Basso

2000-01-01

0

Notes: He likes team-working.

Contact name

Link

Facebook

<https://www.facebook.com/raffaele.delbasso>

Gmail

raffydelbasso@gmail.com

The row expands and shows the following information (if inserted):

- Notes about the candidate;
- All the contact links or mails which have been registered.
 - If you click on a web link, you will be redirected to the site you clicked (e.g., Facebook profile);
 - If you click on an email, your email client will open.



Action list • Edit candidate



This button lets you edit the candidate information.

Suit

localhost/suit/new/edit.html?id=3

First name: Giuseppe ✓

Last name: Lepore ✓

Birth date: 01/01/2000 ✓

Employed: ☐ Yes ☒ No

Salary: no salary needed ✓

Notes: insert notes about the candidate here ✓

Contacts: name (ex: Gmail) ✓ link (ex: mariorossi@gmail.com) ✓ +

Name	Link	Action
------	------	--------

Cancel Submit

Action list • Delete candidate



This button lets you delete the candidate. It will still be possible to search for deleted candidates through the filter panel.

Delete candidate

×

Are you sure?

Cancel

OK

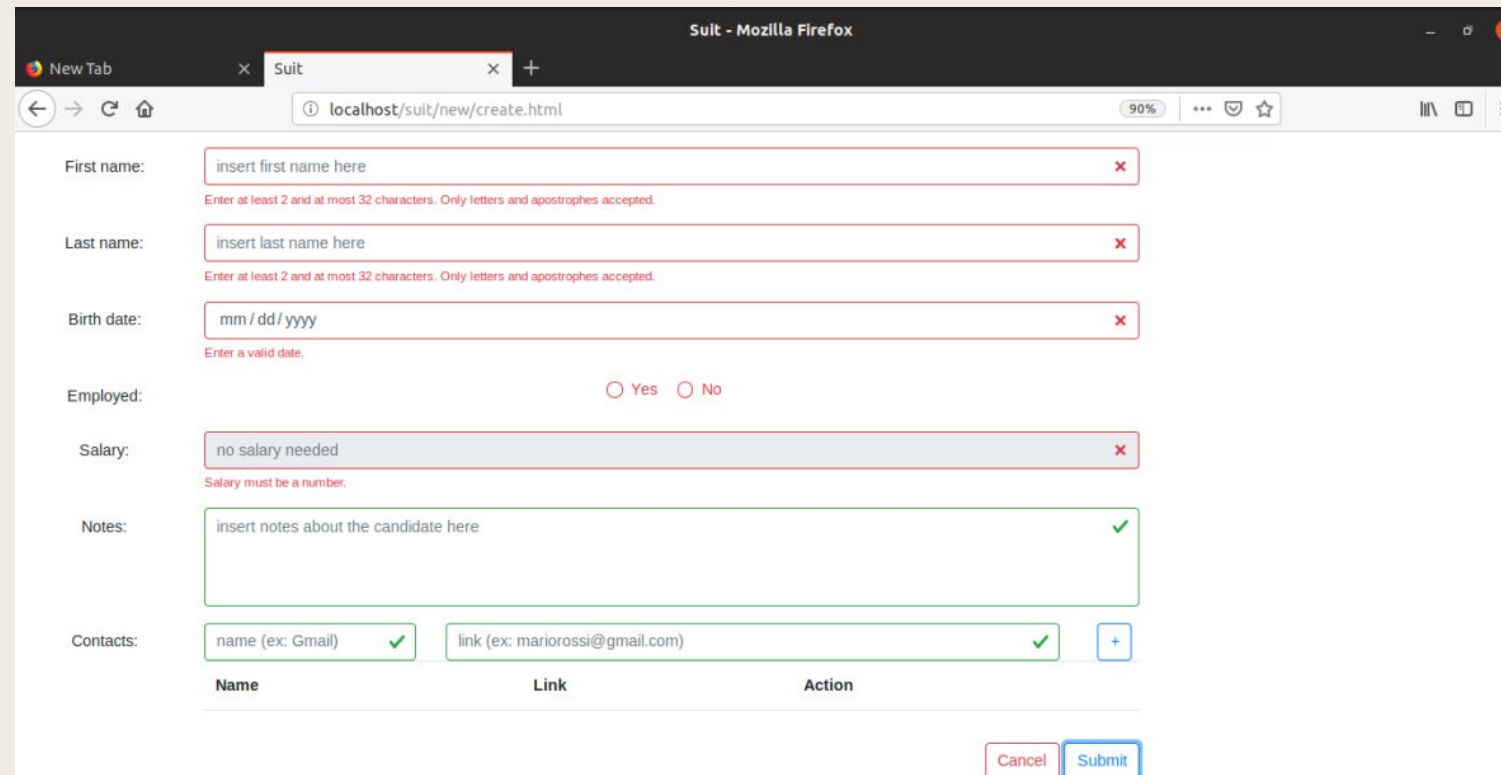


Add candidate

Add candidate

This button lets you add a new candidate.

The text fields are red when there is something wrong. Otherwise, they will be green. You can submit a candidate only if all the text fields are green.



Suit - Mozilla Firefox

localhost/suit/new/create.html

First name: insert first name here ✗
Enter at least 2 and at most 32 characters. Only letters and apostrophes accepted.

Last name: insert last name here ✗
Enter at least 2 and at most 32 characters. Only letters and apostrophes accepted.

Birth date: mm / dd / yyyy ✗
Enter a valid date.

Employed: ☐ Yes ☐ No

Salary: no salary needed ✗
Salary must be a number.

Notes: insert notes about the candidate here ✓

Contacts: name (ex: Gmail) ✓ link (ex: mariorossi@gmail.com) ✓ +

Name	Link	Action
------	------	--------

Cancel Submit

Conclusions

Our software has the goal to help the company during the hiring process.

Coming features:

- *A better interface;*
- *New filters.*

The app might be updated in the future to allow to manage all the employees becoming a more general tool for the company.

GitHub project link: <https://github.com/lt-scuolalavoro/suit>





Thank you for the attention.

Backup slides

- [Deploy](#)
- [What's Alternanza Scuola-Lavoro?](#)
- [Why C + CGI?](#)
- [Why JSON?](#)
- [Why Bootstrap + Vue?](#)
- [New filters](#)
- [Better GUI](#)
- [DB Versioning System](#)





Deploy

To run the software you need to read and follow the instructions located in the GitHub repository wiki.

Link: <https://github.com/lt-scuolalavoro/suit/wiki>





What's *Alternanza Scuola-Lavoro*?

Alternanza Scuola Lavoro (School – Work experience model) is the innovative educational discipline which allowed us to 'work' for the company during our school years.

During the last two years we alternated school days with work ones, in which we discovered the working life and how it feels.





Why C + CGI?

We used C and CGI in the backend essentially because we studied C during our last school year.

Even if we know that C is not the most suitable language for this kind of application, we wanted to use our C knowledge to achieve our goals, in order to get a deeper understanding on what we were doing.

Another reason is that C is still one of the fastest languages in the computer science industry and we got the proof of it during the development of this project.





Why JSON?

We needed to let the db communicate with the frontend frameworks (Bootstrap + Vue), so we found JSON the easiest way for us to do that.





Why Bootstrap + Vue?

These two frontend frameworks simplified the GUI design and development due to their flexibility and their approachability.





TODO: New filters

We are going to add new filters like:

- Order the table by record insertion date
- Order by age
- Show only unemployed candidates
- Show only employed candidates





TODO: Better GUI

We want to improve the GUI adding more feedback messages that aim to enhance and make easier the user experience.



DB Versioning System

We created a database versioning system to automate the process of updating the database schema and data on every machine.

We use sql and sh scripts to execute queries automatically.

Everything is managed by a shell script called 'db_update.sh' at the moment.

It checks the current version of the database and updates it to the latest version.

We are designing a better modular script capable of execute single or multiple operations by the use of arguments (e.g. -help for synopsis , etc.).

