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CS562: Software Project Management

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Jobprofill

1. What's the system about?

How many of you are currently in the process of applying for internship/job opportunities in the upcoming summer? I'm sure that everyone must be irritated by filling out the long-drawn-out forms with repetitive fields like ethnicity, disability status, LinkedIn URL, etc. The proposed system *Jobprofill* is a Firefox/Chrome Extension which will help the users in filling the applications automatically. After installing the add-on in the browser, whenever the user fills up the first job application, they will be able to click on the extension icon in the toolbar to generate their profile for storing in the browser's localStorage. The user profile will be stored in the form of key-value pairs of field and value. For every subsequent job application, on any other job portal, all the known fields will be auto-populated with the values stored in the profile. If there are any new fields, the user should fill those and click on the extension icon again to update the profile.

There are extensions like Autofill available on extension-stores but they have a very generic use and they don't work cross-job-portal, or they work on a defined set of domains. This extension should however overcome the limitations and be flexible to work on any job portal. If at all it is possible to cache the resume files, they should be auto-uploaded or the user should

be navigated to the remembered path. The extension will be built using **javascript, jQuery, and javascript APIs** by following the MDN's standard add-on packaging. If any other technology is required for DOM parsing or any other purposes, it'll be added up.

2. User stories

a)

⊟ **Setup user-story for extension development**   ✕
in list To Do

ADD TO CARD

≡ **Description** Edit

    1. Determine whether to develop a cross-browser extension or an extension specific to Google Chrome/Mozilla Firefox.

    2. Identify what other technologies might be needed.

    3. Setup the extension folder with manifest file, icons, js, etc.

    4. Scrape resume portals for commonly seen fields in job application forms.

    5. Store the scraped fields in some .json/.txt file

Acceptance Criteria:
All the initial setup is done with a pre-identified form-fields list ready.

& Members
◈ Labels
☑ Checklist
◷ Due Date
⌀ Attachment
▭ Cover

POWER-UPS
Get Power-Ups

⌀ **Attachments**

ACTIONS

LINK   **First Web Extension Tutorial** ↗
Added an hour ago - Comment - Remove - Edit

→ Move

b)

⊟ **Parse form fields to create user profile object**
in list To Do

≡ **Description** Edit

    1. Identify labels and inputs in the from

    2. Form user profile as every new field is read.

c)

Save user profile to browser cache

in list To Do

☰ Description Edit

As an online job applicant, I can fill the application form and then click on the plugin icon in the browser toolbar so that the values filled in the application generate my user profile for reuse.

Acceptance Criteria:
1. The userProfile object is generated by parsing the DOM and matching fields with regular expressions.
2. The userProfile object is saved in the browser's localStorage.
3. The userProfile object consists of all the form elements that have values.

d)

Auto-populate the form with user profile object

in list To Do

☰ Description Edit

As an online job applicant, I can open any job application portal and see the values automatically filled depending on my previously saved details.

Acceptance Criteria:
1. All the existing fields in userProfile object should be matched with the fields in the DOM with correct regular expressions.
2. All the existing values must be populated be it any type of form input, select, radio, textareas, checkboxes

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e)

Update User Profile object with a new form ✕

in list To Do

Description Edit

As an online job applicant, I can modify the auto-filled application form and then click on the plugin icon in the browser toolbar so that the values filled in the application update my user profile for reuse.

Acceptance Criteria:
1. The userProfile object is updated by parsing the DOM and matching fields with regular expressions.
2. The updated userProfile object is saved in the browser's localStorage.
3. The userProfile object consists of all the form elements that have values.
4. The userProfile object doesn't modify a field if it changes to blank.

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◈ Labels

☑ Checklist

🕐 Due Date

📎 Attachment

🖥 Cover

f)

Auto-upload or suggest the previous path for resume/cover letter fields ✕

in list To Do

Description Edit

As an online job applicant, I can auto-upload the resume/cover letter or navigate to the previously used folder.

Acceptance Criteria:
1. The resume/file should be fetched from app cache/browser storage or
2. If storing is infeasible, the path should be remembered.

ADD TO CARD

👤 Members

◈ Labels

☑ Checklist

🕐 Due Date

g)

Support multiple education/experience/projects fields ✕

in list To Do

Description Edit

As an online job applicant, I can see my multiple educational institutions or experiences being auto-populated.

Acceptance Criteria:
1. All the multiple experiences should be auto-populated.
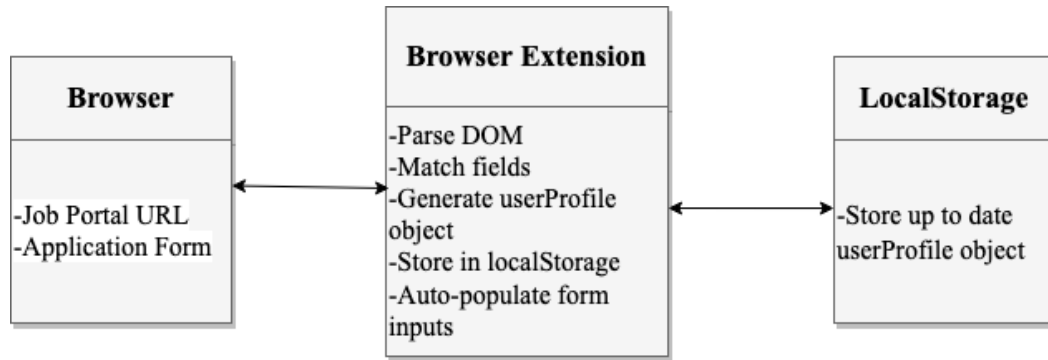
ADD TO CARD

👤 Members

◈ Labels

☑ Checklist

🕐 Due Date

3. UML Diagrams

a) Generic Block

Browser

-Job Portal URL
-Application Form

Browser Extension

-Parse DOM
-Match fields
-Generate userProfile object
-Store in localStorage
-Auto-populate form inputs

LocalStorage

-Store up to date userProfile object

Block Illustration

b) Generic Sequence Diagram

User interaction with website and extension