MIS 710 Process Innovation & Management

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Workflow Redesign Team Project

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Content

Overview

Considering the current system, while applying for jobs many companies ask you to apply externally. In this process, they ask you to create a login for their portal and fill in some details/forms. Ideally one job application process for 1 company takes around 20 minutes. As people apply for multiple companies and multiple positions, they need to repeat the same process for each company. This can be a very time consuming and lengthy process. For instance, a student is applying for X company then he needs to sign up in one portal like linkedin or Handshake, then fill up everything and systems provide information for job suggestions according to his profile. During the time of the application process he needs to apply externally via Workdays or some other application and repeat that process for an endless number of times while applying for a new job. So, it is a hectic and time consuming process for students.

IS Process Analysis

Functional Description (IS) - Process

- Applicant preparing his/her resume along with a cover letter for job application
- Applicant will apply for jobs application involving external or third-party application recommended by companies
- Create different login portal to fill all the details/form for each industry/position
- All documents need to be uploaded manually
- Applicants need to apply for multiple companies via their individual portal
- Each forms need to be reviewed and fill individually to complete the application process
- Applicant will receive their application submission on their individual company portal

Functional Description (IS) - Issues

- Individually filling the form and making different login accounts for each job portals
- It is a time-consuming process. All fields needs to be filled manually
- This is most tedious process where applicant need to fill all the details again for each company and attach all documents repeatedly
- A lot of time is wasted on application process including reading and filling the same field for every company
- Uploading the same file making the process lengthy
- Too many logins and difficult to track all accounts. There is no proper control to such huge amounts of logins, might lose track of the job application

Process Constituents (IS)

```
                        ┌─────────────────┐
                        │ Job Application │
                        │     Process     │
                        └─────────────────┘
        ┌──────────────────┬─────────┴──────────┬──────────────────┐
        ▼                  ▼                     ▼                  ▼
┌───────────────┐  ┌───────────────┐   ┌───────────────┐  ┌───────────────┐
│   Structure   │  │     Human     │   │     Info      │  │     Tools     │
└───────────────┘  └───────────────┘   └───────────────┘  └───────────────┘
```

| Structure	Human	Info	Tools
Departments involved in this process: Applicants University's Career department/ Consulting Companies Companies Job Application Portal	Individuals involved: Applicant HR Department	Information comes from: Applicants Job application portals(LinkedIn, Handshake, etc) Universities Consultant Companies	Mail Email Phone call Text message

- Currently, the job application process is divided into four main parts.
  - Structure
  - Human
  - Information
  - Tools
- **Structure:** It includes a number of departments working behind this process.
  - Applicants – Make sign up/ sign in with credentials
  - University career department/Consultant – Provide job details
  - Companies – Receive applications
  - Job application portal – It is a mediator
- **Human:** There are two person involved
  - Applicants – Apply for jobs
  - HR Department – Make selection process
- **Information:**
  - Applicants – Provide all the information required for that job position
  - Job application portal – Search for jobs
  - University/Consultant – Provide help to applicants regarding job application process
- **Tools:**
  - Email/Text message/Phone: These are the tools use for acknowledgment and make contact between applicant and HR department of the company

Relationship Map (IS)
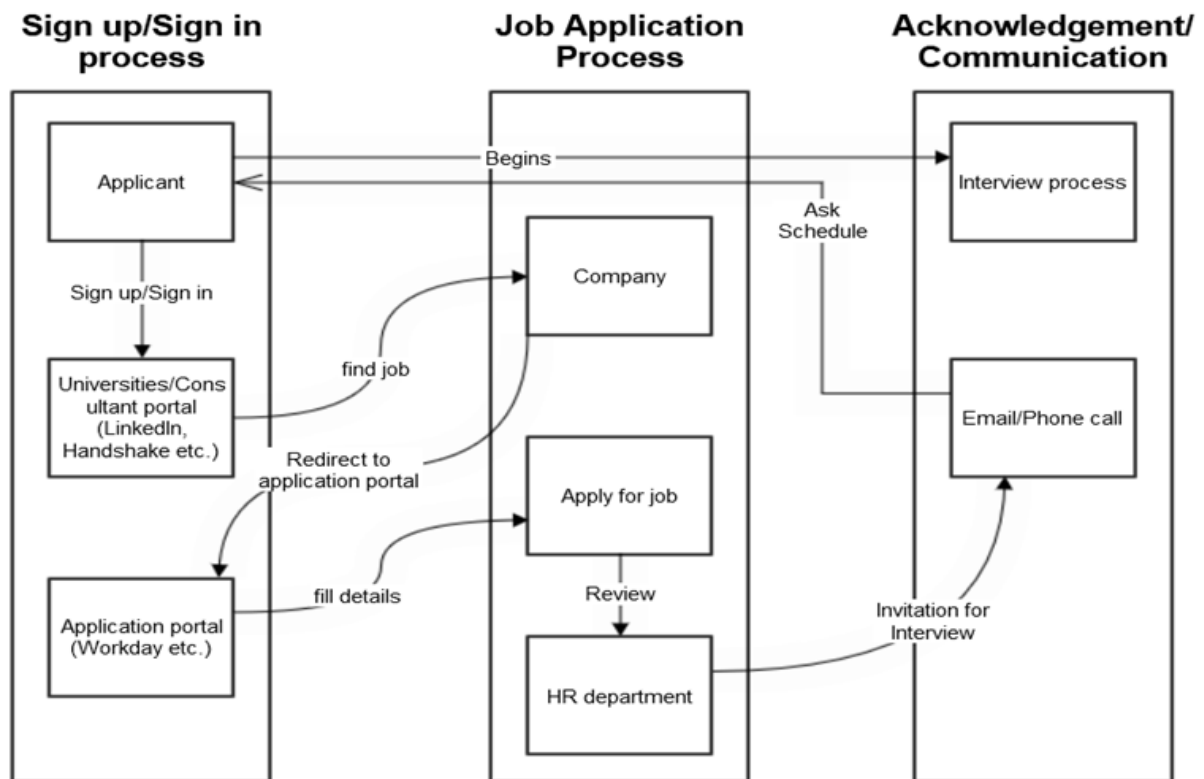
- First, applicants sign up/sign in with credentials on web portals (LinkedIn, Handshake, etc.)
- Applicant find an appropriate job and position, then hiring company redirect his/her application process to their web portals (Workday)
- After that, applicants provide all the details asked by the company such as background work experience, resume, cover letter etc.
- Submitted applications of applicants reviewed by the HR department.
- Result of selected candidate acknowledge by Email/Text message/Phone and schedule for interview process

Process Map (IS)
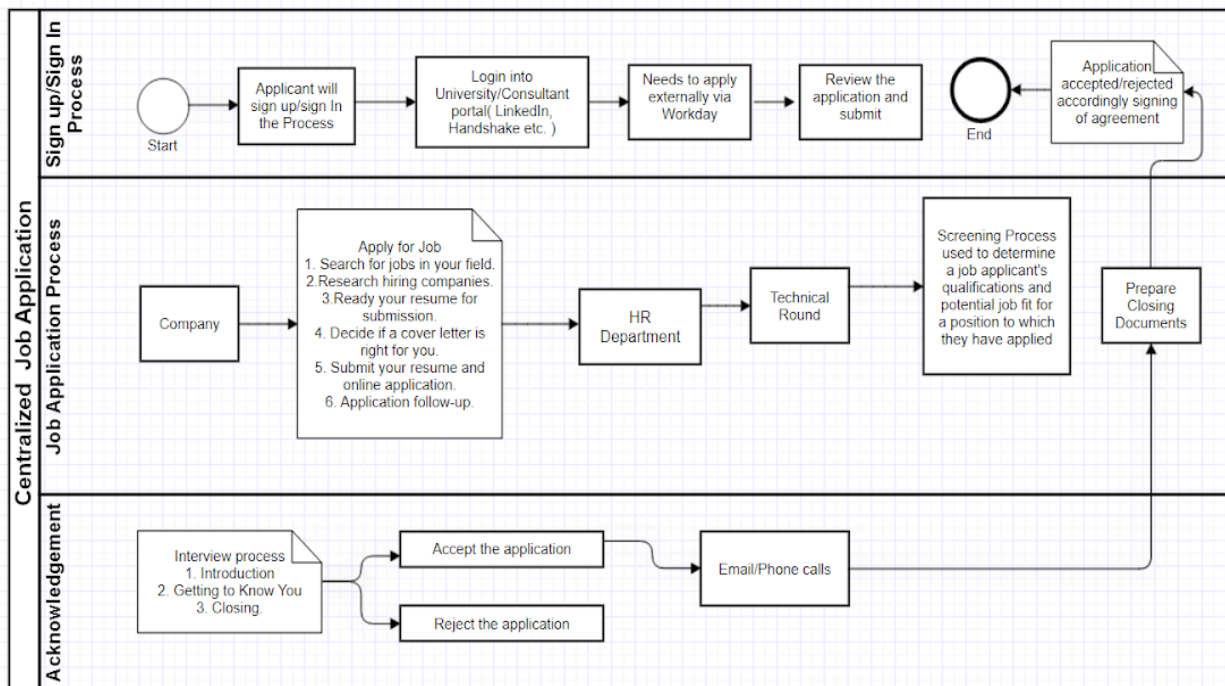
- First, applicants will sign up/sign In the Process. Then login into the University/Consultant portal (LinkedIn, Handshake etc).
- Applicants need to apply externally via workday and then review the application and submit.
- Second level of Job Application Process applicants will search for the company they want to apply according to their requirements.
- The application will go to the HR department then Screening Process will occur to check the qualification & potential job fit for a position to which they have applied.
- Third level is the interview process and if the application gets accepted the result will be sent via Email/Phone call..
- Last, Prepare closing documents and application accepted/rejected accordingly signing of agreement.

SHOULD Process Analysis

Functional Narrative(SHOULD)

- We propose a centralized system that connects students, universities, and businesses
- People will sign up through their accounts and create their profile on the SmurfApply portal
- The portal will be integrated with all other external job application portals of the respective organizations
- Next, the applicants have an option to autofill the details in the portal they are applying to using the information stored
- After that, applicants only give their information to the employer if they are interested in a position.Moreover, make the process easy and transparent.
- We suggest a system in which the applicant is asked for these details at the outset and the information is saved in the database
- For everyone, there will be a centralized login/process

Behavior Narrative(SHOULD)

Pivotal steps by human:

- Making appropriate account by the student, University, Consultancy & Company
- Students should upload valid documents like resume, cover letter, transcripts, certificates, etc
- Companies should upload the appropriate job description
- Integrating with company's job application portal
- Company should provide the employment letter to the applicant

Pivotal steps by machine/system:

- Verification of the uploaded documents
- OLAP analytics access to keep a check on the working of the system and

generating reports to better the framework.

- Avoid breach of confidentiality

Process Constituent(SHOULD)

- The job application process is divided into four main parts.
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  - Human
  - Information
  - Tools
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  - Job application portal – It is a mediator
- **Human:** There are two person involved
  - Applicants – Apply for jobs
  - HR Department – Make selection process
- **Information:**
  - Centralized System
  - Applicants – Provide all the information required for that job position
  - Job application portal – Search for jobs
  - University/Consultant – Provide help to applicants regarding job application process
- **Tools:**
  - Email/Text message/Phone: These are the tools use for acknowledgment and make contact between applicant and HR department of the company
  - Database Server
  - OLAP analytics

Key Reengineering Principles Proposed

- **Principle 4 (Self Service)**

Applicants can be independent of the Recruiting agencies and avoid fees. They will be able to upload information themselves on the portal and keep track of the process personally.

- **Principle 5 (Value Chain Redesign)**

The process eliminates the need of applicants to fill in application forms on different company portals individually. They need not log-in to every aspiring Company portal and can apply directly through a single portal. This eliminates the need of company career websites .

- **Principle 6 (Reduce Busy Work)**

The manual cumbersome work of filling out application forms for every company individually is reduced. The applicant does not need to constantly contact recruiting agents or log in to every company website to check the status of the application and will get updates through notifications automatically.

- **Principle 8 (Reduced Contact Points)**

Applicants do not need to physically carry documents or meet agents and visit offices personally. They do not need to contact the agents or company recruiters for updates.

- **Principle 10 (Centralization)**

The manual process of applying to multiple company websites separately is automated and is centralized by applying through just a single portal.

- **Principle 13 (Early Data Capture)**

All the data is captured and verified at once in the early stage of information form filling by the Applicant.

- **Principle 17(Informate)**

The different stakeholders including the company recruiters and applicants will have access to the entire Applicant Resume details and application status at any moment. They can check for data as and when needed.

Conceptual Data Model

- The primary players in entity relationship model are :
    - User Table
    - Social Media
    - SmurfApply Portal
    - Regulatory OLAP
    - Job Portal
    - Company Job Portal
- Close integration between different entities ensures faster and transparent flow of data.
- Different tables are responsible for holding different information like social media holds an applicant's social handles and job portal holds the current openings posted by the company.
- Keeping the tables distinct helps in keeping the framework flexible and expendable.

**Process Rummler Matrix: Organization Goals**

- The primary objective is to cut down on the time invested by an applicant in applying for a job.
- OLAP analytics helps us know whether the system is working properly and update to the changes accordingly.
- Avoid breach of confidentiality, cut short on repetitive tasks.

Process Map (SHOULD)
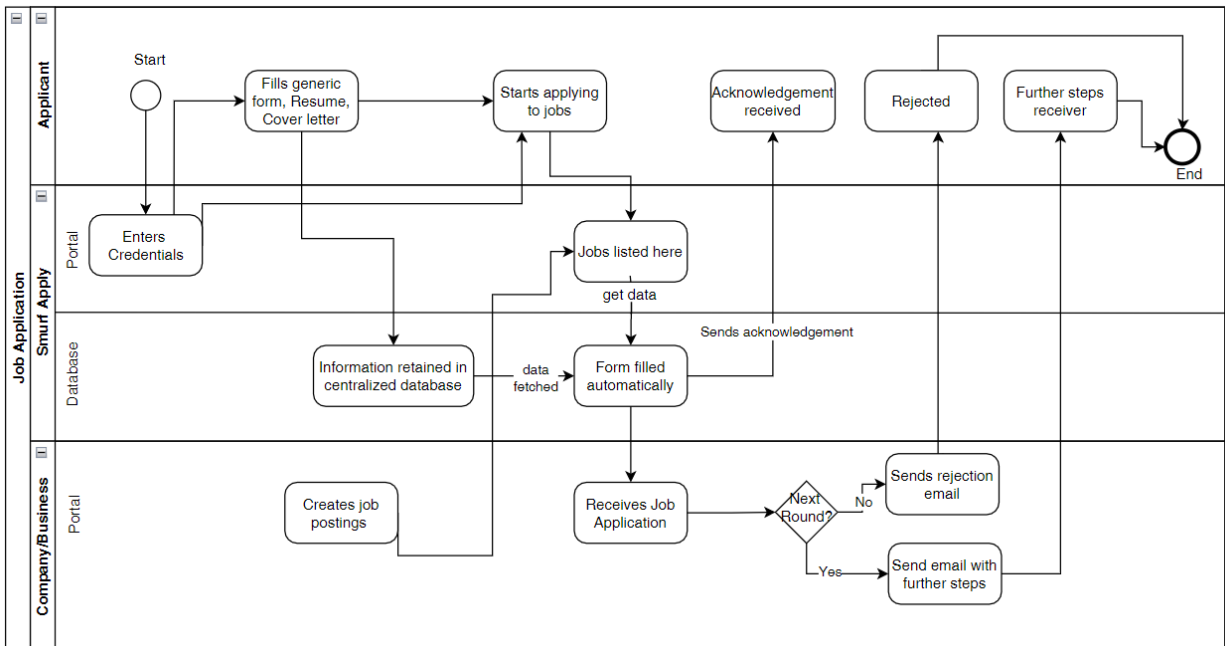
- First, the applicant logs in into the portal.
- If the applicant is a first time user, he/she will have to fill a generic form usually required by companies and basic things like Resume and a Cover Letter and later can proceed to apply to jobs. If they are not the first time user, they will simply be redirected to job listings and they can start applying.
- The information entered by the applicant is fetched by our centralized database and the information is retained for further use of the same.
- When the applicant starts applying to jobs, the data will be automatically fetched from our centralized database and will be put into the job applications, thus saving time and effort. Also, an acknowledgement will be sent to the user of the submission.
- Once the application is submitted, it is further reviewed by respective HR departments and a decision is taken.
- If the applicant clears the screening they will be notified with the further steps, else they will receive a Rejection email from the company that they applied to.

Rummler Matrix: Relationship Map (SHOULD)
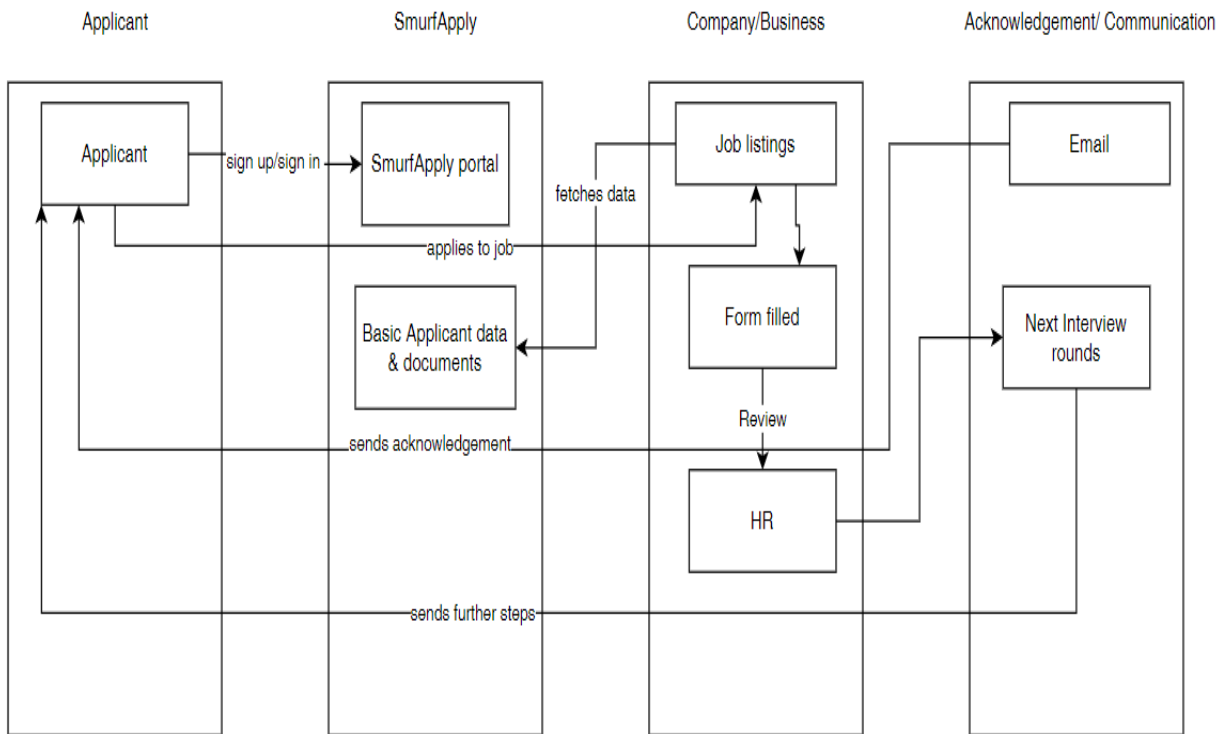
- This represents the new relationship map of our process.
- It includes the centralized database which saves data filled by Applicant and is auto-fetched by the company's job application forms.
- This makes it easy to apply and time efficient.
- Conversations and acknowledgements happen over electronic mediums like e-mails and phone calls.

Process Map with Task Sub-Goals
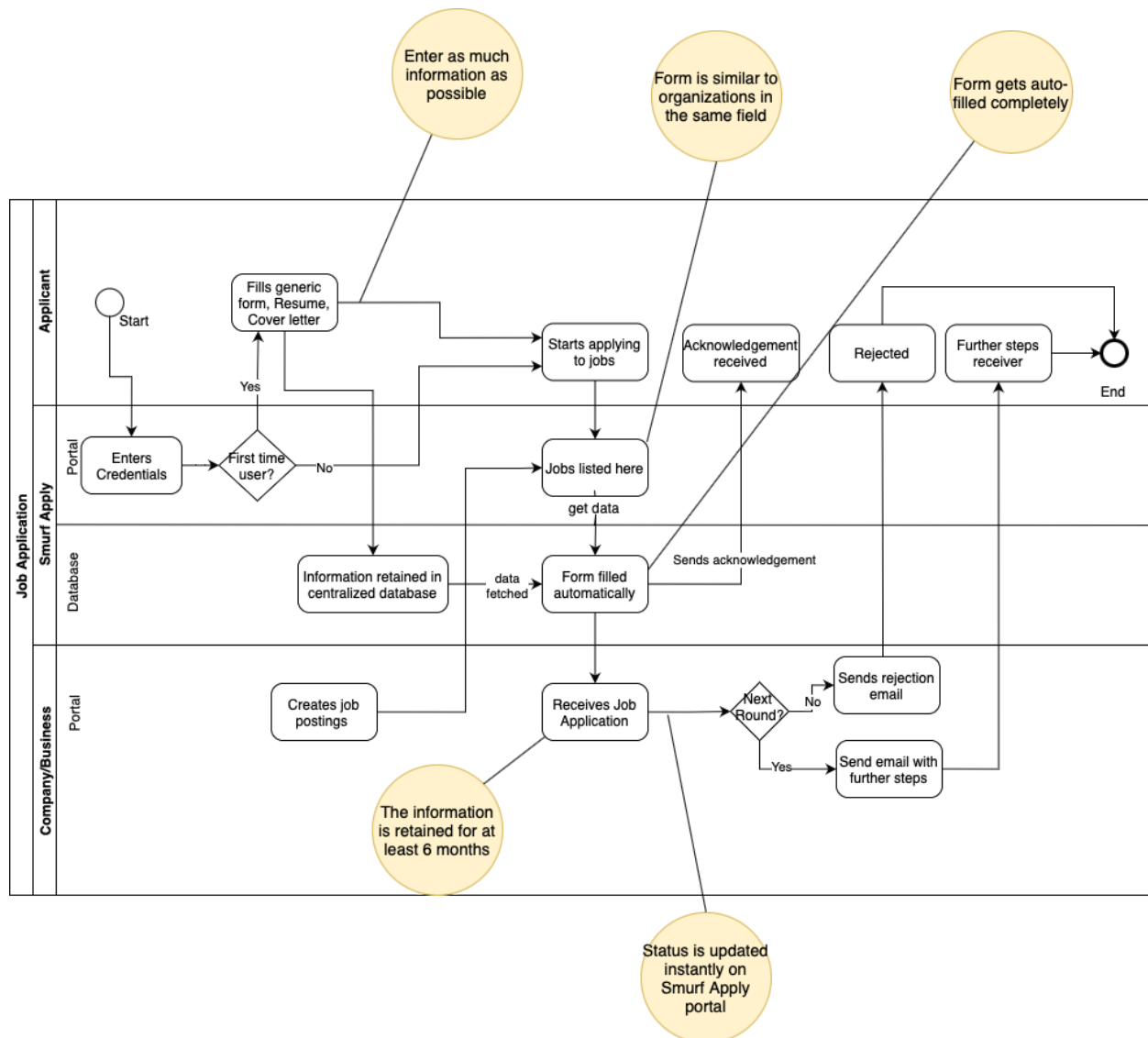
- The applicant should be able to enter the maximum amount of information required to apply for the job before he/she submits the application. The more the information submitted in the beginning, the lesser the applicant will have to submit later for individual organizations.
- The applications of different organizations should be clustered together based on the nature and the sector of the organization so that it is easy to standardize the applications to reduce redundancy. This task also helps to benchmark different applications in the future.

- The primary goal is to autofill the applications completely so that the applicant doesn't have to fill the same information manually in a repeated fashion.
- Once the application is received by the organization, it should retain it in their database for at least 6 months so that the same application could be used for other positions in the same organization.
- Lastly, status of the application should be updated on the Smurf Apply portal so that the applicant is able to see all their applications on a single place on the portal as a dashboard.

Functional Goal Summary

Function	Timeliness		Quality		Other impact	
	Outputs	Goals	Measures	Goals	Measures	Goals
Total process		Shorten overall time used		Applicants find desired jobs, companies find qualified employees	How effective for company to find a good employee, vice versa	
Submit information on Smurfapply	no need to fill out information over and over	Save time				Only need to submit all information once
Choose jobs to apply on Smurfapply	Easily apply for multiply jobs	100%				
Company review application	Companies can review all the applicants on portal	100%		Companies can look for applicants in database		Applicants meet the requirements will be selected

Above is a screenshot of the functional goal summary for Smurfapply. In this graph, we look at some functions that will be implemented into the centralized job application. The new process will shorten the overall time used for both companies and applicants. The goal is for applicants to find desired jobs and for companies to find qualified employees. The effectiveness of this total process is dependent on how well the company finds employment. Applicants also need to submit their information to the portal. That information includes a resume, CV, certifications, and so on. Applicants only

need to submit once for their applications, except for any future updates. There is no need to fill in the same information over and over. They can also apply for multiple jobs at one time. Companies can also review all the applications online or look for ideal candidates within the database. Applications that meet all the criteria will be selected.

Role/Responsibility Matrix

Major process steps	Applicant		Hiring Manager	
	Outputs	Goals	Outputs	Goals
Submit information on Smurfapply	Resume, cover letters etc. will be on the portal	Reduce the need to fill out application over and over	Posting job description	To draw more applicants to apply
Choose jobs to apply on Smurfapply	Applications to employers	Apply as many appropriate jobs as well	Received applications	Received as many competent applicants as well
Company review application			Evaluate the skills and ability of each applicant	Choose the most suitable candidate for the company
Company notify result	Recived result, either offerd job or declined	Received offer	Result sent, wait for response	Applicant takes the offer

The above graph shows the role/responsibility matrix with Smurfapply. There are two parties in this process, one is the applicant and the other one is the hiring manager. The graph shows how they are participating in the major process steps. Regarding submitting information on Smurfapply, both applicants and hiring managers can post on it. Applicants need to submit resumes to the portal. The hiring manager can post job info on the portal too. They would like to draw more applicants. Applicants will apply as many as they want. The hiring manager, on the other hand, will review that information and send out a notice to people about the result. Applicants either received the offer or declined. The applicant who is rejected can start looking for other jobs. Those who received the offer can decide whether they will take the offer.

Job model design

Output	Critical Dimensions	Measures	Standards
Verification of uploaded documents	The documents uploaded by the applicant should be legible, and the file format should be supported	Make sure there are no faults in the uploaded documents	Check for authenticity of the documents uploaded
Data Synchronization	The data updated by the applicant should synchronise with the respective job data in the database	Database should be updated regularly with latest job profiles	Real-time synchronization of database with 99.99% accuracy
Form verification	The auto-updated form details should be correctly filled	The details from the applicant profile must be updated in the correct fields on the form	The applicant must verify the details before submitting
Notifications	- The applicant is notified of new jobs and job offers - The company is notified of applicants applying for their listings and accepting job offers	User details like email id and phone number should be available to send the notification	The notifications must be sent to the users in real-time

For our new system, we have set up a job model that looks at the critical dimensions, measures and standards required to reach the desired output of the product. Our first desired output would be the verification of the documents uploaded by the applicant in our portal. The critical dimension we look out for in this would be that the documents uploaded by the applicant are clear and legible and the format of the uploaded document is supported. Also, to see that the document uploaded is in full and that a broken file is not uploaded. We will also check for the authenticity of the documents. Our next output would be data synchronization. For this we will be taking the data from the applicant with regards to the job profiles the applicant is looking for and matching the said profiles with the existing job offers available in the portal. We will require the portal to be synchronized with the database in real-time and to update the database regularly with the latest job offers from the companies. Next would be the form verification process. Here the details updated by the applicant at the time of creating the profile is used to auto fill the application for the job request. The auto-filled details need to fill in the correct fields in the portal and the applicant must verify these details before submitting the application. Our next output for the job model is notifications. Here the applicant will receive notifications for the new job postings that are in line with the

applicant's interests and receive notifications for the offers on the jobs the applicant has applied to. The company will receive notifications about the response to the job postings they have put forth and the status of the job offers given to the applicants. For this we require the basic details of the respective users like their email ids and phone numbers. The notifications sent to the respective users should be sent to them in real time.

Costs & Benefits

The costs that will be incurred to implement and maintain the application and any additional costs has been divided into two parts- Initial investment and operating costs. The main costs incurred under initial investment would be the development cost for creating the online portal- SmurfApply. Followed by this we have additional costs like the expense for setting up the database servers. We also need the initial investment to get the companies on board with the centralized job application system. Next is our operation costs for the project. For this we require investment to maintain the online portal and the database servers, also the support costs. We would also require investment for training the required people with this system.

For all these costs incurred for creating and maintaining the system, we will reap the benefits as well. By creating this system, we can reduce the overall time taken by an applicant to fill out different job applications manually. With the automated system the applicant can reduce at least 20 minutes of their time, which is usually taken to fill out one application. This way when filling out multiple applications a lot of time can be saved. This way we can improve the overall experience of applying for jobs for the applicant. This will also make the entire process less time consuming and make the overall process automated, with the applicant just having to go through with the details before submitting.

Other Processes Impacted

- When a student signs up using university credentials, he or she is prompted to submit all the essential information and documents for the application process, which are then saved in the database.

- The student/applicant is alleviated of the responsibility of entering the same data in each application.

- The applicant can apply to several firms and openings from a single portal, eliminating the need to repeat the application process.

- The total application process time is reduced because the process has been centralized.

- The recruiters will be able to assess each applicant's skills and abilities directly, allowing them to pick the best candidate for the job.

- By looking at their portal, hiring managers and applicants can keep track of their daily schedules.

- Application process is simple and transparent, providing applicants with a positive experience.

Future evolution of the system

- In the future, we will adjust our plan with the help of data analysis.

- A backup archive would be built to maintain a strategic distance from the possibility of the system being crashed.

- Increasing the number of candidates who can utilize the portal at the same time to 20000+

- Adding an Interview Scheduler: Using this advanced scheduler, you may select the best candidates for the job, contact them and schedule interviews to available dates. The time saved by the human resources department and recruiters can be used to push for higher roles and responsibilities, boosting productivity.

- Adding Location module: Enabling the location module permits the system to automatically suggest ways of transportation if somehow the candidate is not nearby the interviewer's location.

Thank You