

Business Analysis

1. Introduction

1-1. Business purpose

Intevations LLC's is a [SBA certified HUBZone Small business](#) and its mission is "we are committed to providing enrichment to economically blighted communities." Intevations has worked closely with The United States Department of Veterans Affairs, VA for short, in the past and wishes to work further with the VA. Veterans often struggle with the transition from military to civilian jobs and the VA is looking for solutions. This is a perfect opportunity for Intevations to step in and create a software solution. The proposed software solution, or system, is one that will take a veteran's military history and create a resume, suited for the technology industry, based on currently sought after skills.

1-2. Business scope

The business domain of Intevations is technological solutions. Intevations works with entities that enrich economically blighted communities. Intevation offers technological solutions to their issues, such as recommending pre-made solutions, taking pre-made solutions and customizing them, or creating a custom solution from scratch.

The system will be designed for use directly by the VA. It is assumed the system will have access to the veteran's military history and internet access to update the most sought after skills. It is also assumed that the resume created will not be perfect, but rather a starting point for further improvements.

1-3. Business overview



- The VA's mission is to assist veterans, so every decision they make will keep that in mind.
- Every Politician has different policies and procedures that will effect the VA
- The VA is the entity that will decide wether or not to use the developed product from Intevations
- Intevations employees Thomas Ritter
- This is a senior project for four software engineering majors at FGCU, and Intevations is the sponsor.
- Thomas Ritter is the contact point/project manager for the senior project
- The dev team has to meet certain requirements for their degree

1-4. Any words that are used in a special way within the business or organization.

VA - The United States Department of Veterans Affairs

VADIR - VA's database holding veteran's military history

MOS - Military Occupational Specialty code, code given to the exact job the veteran held

NC/OER - Non Commissioned/Officer Evaluation Report

1-5. Major Stakeholders

- Intevations - The company behind the development of the system
 - They will have the final say on what is and isn't implemented
 - Thomas Ritter - Employed by Intevations
 - Project manager/sponsor for this project
 - The VA - Entity interested in utilizing the system
 - They are the ones the system will be pitched to.
 - VA employees - The user of the system
 - The system should suit their needs and current workflows, since they will be the ones to use the system the most
 - Veteran - Beneficiary from the system
 - The system will, ultimately, benefit them. It is important to consider what types of resume's they will want.
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2. References

<https://certify.sba.gov/>

<https://intevations.com/>

Thomas Ritter - Project manager

<https://www.va.gov/>

<https://aws.amazon.com/>

3. Business management requirements

3-1. Business environment

- The mission Intevations holds, "providing enrichment to economically blighted communities," must be taken into consideration every step of the way.
- VA's mission statement is "To fulfill President Lincoln's promise 'To care for him who shall have borne the battle, and for his widow, and his orphan' by serving and honoring the men and women who are America's Veterans." Every decision must ensure the system benefits veterans.
- The constantly shifting political landscape changes what is prioritized when, so the timeliness of the project is important. The next administration might not prioritize this system.

3-2. Mission, goals and objectives

The mission of Intevations, quoted from their website:

As a SBA certified HUBZone Small business, we are committed to providing enrichment to economically blighted communities. This paired with our commitment to meeting and exceeding our customer's expectations is core to our mission.

The goal is not to create something, that makes the VA's job easier, and profit off it, but to improve the economic potential of transitioning veterans.

3-3. Business model

The mission of “providing enrichment to economically blighted communities” will be met by developing a system which will translate a veteran’s military skills and achievements into currently sought after skills in the tech industry. The current process that the VA goes through is arduous and can have mixed results depending on who is working on the veteran’s resume. By automating the framework and skills of the resume, more time is freed up, in which, the VA can focus on tailoring the resume for the specific veteran.

3-4. Information environment

Project portfolio

The system can be broken into 3 distinct parts – current jobs analysis, veteran’s history analysis, and translation. The veteran’s history analysis has the highest priority, followed by current jobs analysis, and then the translation. If veteran’s history and current jobs analysis are complete, it would create a minimally viable product that would still be useful for the VA.

Long-term system plan

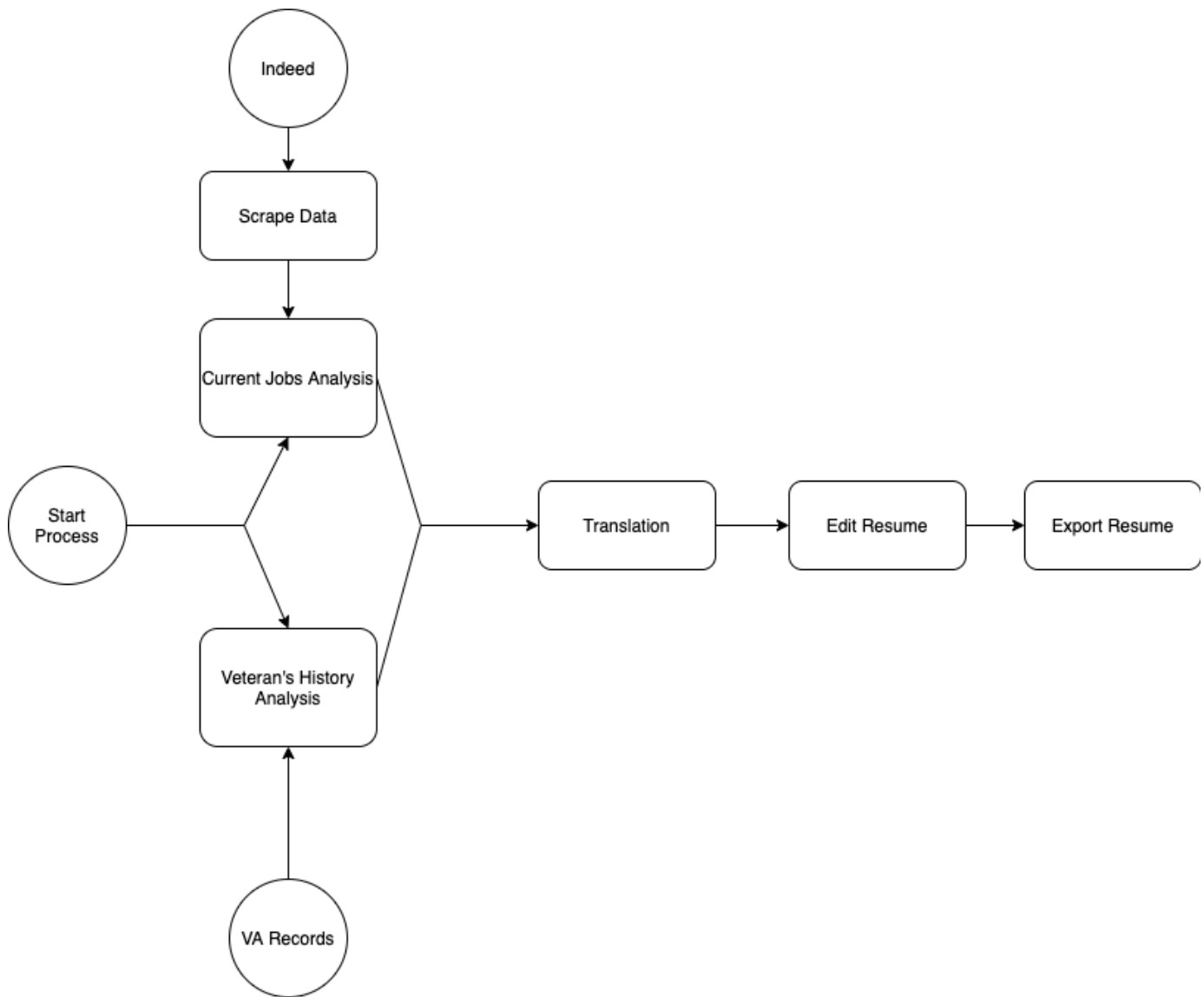
The system shall be development and maintained on AWS. The majority of the programming will be done in Python. Veteran’s military history is both personal and confidential data so an extra emphasis on keeping that data secure.

Database configuration

The databases will be developed using PostgreSQL. The database for holding current jobs analysis will be made from scrapping public job postings from Indeed and utilizing natural language processing to determine the most desired skills. At this time no further information is available, for the database configuration as we are waiting on clearance from the VA.

4. Business operational requirements

4-1. Business processes



4-2. Business operational policies and rules

ID	Name	Description
1	Current Jobs Analysis	This will analyze current job postings from Indeed, and analyze it for the exact verbiage used for the most desired skills
2	Veteran's History Analysis	This will analyze the veteran's records for skills, responsibilities, awards, and other things that will be useful for a resume
3	Translation	This will take the analysis from both current jobs and veteran's history, and create a starting point resume
4	Edit Resume	The resume created by the translation will be editable by the VA employee
5	Export Resume	The resume shall be able to be exported as a PDF, DOCX, PNG, or JPG

Table 1

4-3. Business operational constraints

New resumes, based on veteran data, can only be generated by properly trained VA employees.

The system shall will complete its process within one minute of the triggering event.

A new resume will only be generated with the direct consent of the veteran.

Due to the nature of some veteran's military history, the VA employee processing the history, must have proper clearance.

All processing of veteran's data must occur in a private and secure cloud.

4-4. Business operational modes

The current jobs analysis and veteran's history analysis shall run independently of each other, if either system goes down, the translator will not work, but the part that is still up shall give information helpful for the VA employee to make the veterans resume. If the entire system is down, the VA employees will have to either wait or do it manually.

4-5. Business operational quality

Since this system is intended to be the starting point for a resume, rather than a completed product, the quality does not have to be perfect. It is more important to indicate the skills are being sought after, and what, from the veteran's history, supports that skill.

4-6. Business structure

Intevations will maintain and further develop the system for the VA. VA employees will access the system, and create resumes for veterans trying to transition from military to civilian jobs.

5. Preliminary operational concept of proposed system

5-1 Preliminary operational concept

a) operational policies and constraints

- Veteran analysis and job analysis need to be able to run separately.
- The system needs to be similar, in design, to the VA's current technology suite.
- The system needs to be flexible to change due to a constantly shifting political landscape.
- Veteran's military history is personal data and classified. Depending on what roles and operations the veteran took part in, their military history could venture into top secret territory. It is vital that only those with proper clearance are able to interact with a veteran's military history.
- In an event of natural disaster or other unforeseen circumstances, getting this system back online is a low priority item.

b) description of the proposed system

The system will take real and up-to-date job postings from the technology sector and a veteran's military history and analyze both of them. The job postings will be parsed for most desired skill, in their terminology, and the veteran's military history will be parsed for skills and other items, such as awards, that look good on a resume. The system will then take both analyses and translate the military skills into the most appropriate skills from the job analysis. The translation will be in the form of a resume, that then can be improved upon.

c) modes of system operation

The system will have five modes of operation:

- Fully operating
 - All portions and functioning as described
- Job and Veteran analyses
 - Both the job analysis and veteran analysis produce a report of their respective findings.
- Job analysis
 - Only the job analysis runs and produces a report on the findings.
- Veteran analysis
 - Only the veteran analysis runs and produces a report on the findings.
- Blank template
 - Produces a blank resume template that can be edited.

d) user classes and other involved personnel

- End-User
 - Most common user. They have access to run job analysis and restricted access to veteran analysis, dependent on level of classification.
- Super-User

- They will have regular trainings on how the system operates and will be the in house support for any issues.
- Administrator
 - They all the same access as the end-user plus oversight and override privileges. Appropriate clearance still needed to access some veterans military history.
- Veteran
 - They are the recipient of the generated resume. The system should benefit them the most.

e) support environment

The VA will designate some end-users as super-users. The super-users will have extra training on how to support their coworkers and quickly solve most basic problems. The super-users will have bi-annual trainings to refresh their knowledge and to learn about any new features.

If the super-users are unavailable or unable to solve the issue, Intervations will provide support to fix the issue.

5-2 Preliminary operational scenarios

ID	Name	Description
I-1	Create custom resume for a veteran	VA employees currently spend a large amount of time creating resumes for veterans. The system will generate a resume, with the veteran's information in it, and its prediction of the best skills. This will save the VA employees a large amount of time.
I-2	Analyze veteran's military history	VA employees go through a veteran's military history and parse it for any skills. This is time consuming and tedious. The system will do so automatically, and generate a report on the skills.
I-3	Analyze current jobs	VA employees are expected to know the most in-demand skills. The system will figure out these skills and generate a report.

Table 2

6. Other preliminary life-cycle concepts

6-1 Preliminary acquisition concept

Most of the data will be collected through interviewing VA employees and veterans and by watching the VA employee's current workflow. The requirements will be generated from the collected data and then the VA will review the generated requirements. Intervations is currently in talks with professional resume creators to elicit any workflow optimizations.

6-2 Preliminary deployment concept

At the end of each sprint, a demonstration will be given, showcasing current functionality. Using an agile methodology will allow the system to adapt to any changes from the VA.

6-3 Preliminary support concept

There will be day-long trainings that each user of the system will have to go through. Only a few of the users will be trained at a time, to minimize disruption to their current workflow. The VA will select several end-users as super-users. They will receive additional training and have to take a test at the end to certify their extra knowledge. These super-users will be the first line of support. The end-users will be able to ask them for help with most simple issues. Anything the end-user's can't solve will be elevated to the VA's IT department. If they are unable to solve the issue, Intervations will provide support.

6.4 Preliminary retirement concept

Any storage devices that handled any classified data must follow the VA's procedures for disposal. The AWS server will be taken down. The database for current job analysis will be saved and accessible, but marked as out of date.

7. Project Constraints

- The prototype must be completed before April 15 because the dev team is comprised of seniors that graduate Spring 2022.
- The dev team is doing this for a senior project, and therefore unpaid.

- The system's requirements may suddenly change depending on politics and new policies.
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8. Appendix

8-1 Acronyms and abbreviations

VA - The Department of Veteran's Affairs

Intevations - Intevations LLC.

Vet - Veteran

VADIR - VA's database holding veteran's military history

MOS - Military Occupational Specialty code, code given to the exact job the veteran held

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