

Retail Software Database Integration



Sahana Sundar | Nick Shawger | Kyle Sledge

Sponsors: Joanie Fadden, Viggo Forde

Faculty Adviser: Patty Buchanan



What is Snohomish County?

← The local government of this region!

It is made up of:

- 3500 Employees
- 27 departments (Public Works, Roads, IT, Police etc.)

Problem

- 7200+ installations of software products on 3500+ workstations
- Challenging for county employees to know what's currently in the system, no searching functionality
- Several duplicate licenses
- Requests take 10 days to process and upwards of 45 days if procurement of software product is needed

Psst... We have a few products listed on a "Service Management software called EasyVista, which allows employees to directly request licenses we have in the county. This makes them super easy to manage and we want to add more products to EasyVista!

EASVISTA

Goals

- Enhance the use of Easy Vista by creating a menu of highly utilized software products on the app
- Categorize these software products → employees usually come in with a task instead of a specific software name
- Develop a new assessment that would allow Snohomish County to pre-purchase newly introduced software with projected high utilization in the future

How do we figure out which software products are the most utilized?

Data Pre-Processing

Number of Installations at Each Iteration of Pre-Processing

3555 → **911** → **668**

- Lansweeper software pulled out all the installed products on SnoCo's network
- SnoCo manually removed device drivers and unwanted products
- Removed a second round of unwanted products, consolidated different versions of the same product

Clarifying Assumptions

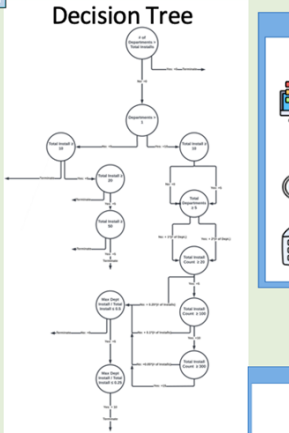
- We asked our sponsor how they would deal with competing scenarios.
- Ex: Which is more valuable to include on EasyVista, a software with multiple departments and fewer installs or a software with one department and many installs?

Implementation

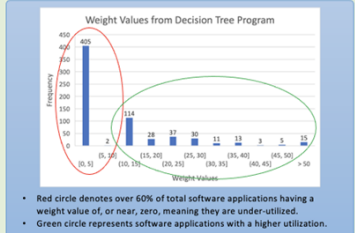
Created decision tree on paper

Automate in Python

Assign Weight Values



The Capstone Team would like to thank our sponsors Viggo Forde, and Joanie Fadden as well as our advisor Dr. Patricia Buchanan for their support throughout this project.



Results

- Our final list of weight assignments matched the software utilization of Snohomish County
- Snohomish County IT chose 15 points as the ideal cutoff value to consider a software product to be added to Easy Vista
- 142 software products with 15+ points → Snohomish County narrowed this down to 62 products to add to Easy Vista
- Capstone team created an initial list of keywords to start categorizing these 62 products
- Created a preliminary test to add software products with a projected high utilization (15+ points based on number of department and installations) to Easy Vista

Savings

\$70,000 / year

175 employee hours / year

Reduce Frustration

Start Projects Sooner

"The 2022 UW Capstone student team assigned to Snohomish County impressed the IT leadership with their ability to distill a complex, elusive and costly challenge into a simplified resolution. They brought clarity, process and logic to an outdated process."
- Viggo Forde (Director of IT)



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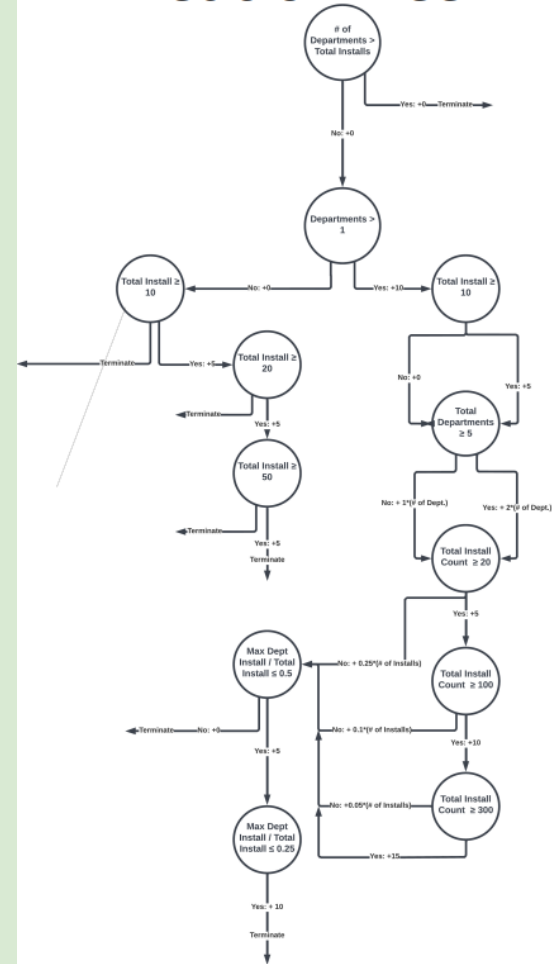


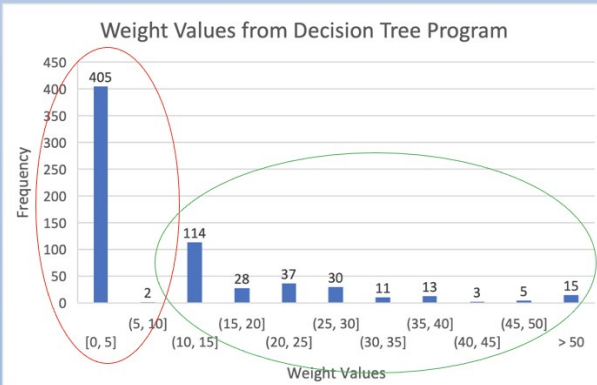
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Decision Tree





- Red circle denotes over 60% of total software applications having a weight value of, or near, zero, meaning they are under-utilized.
- Green circle represents software applications with a higher utilization.

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