

Strategy > Model > Process > System

What?

Create a Dashboard tool for Ensign Students in Tech area (Data Science – Software development)

Why?

This request comes from TAs student for the IT area at Ensign that have gathered feedback from students and noticed that they don't have full clarity about their learning paths and available resources for technology areas, additional to their current Ensign programs. There is a need of knowing support materials online and courses the can use to boost their development and academic performance. The students are also lacking knowledge on the professional opportunities in the Tech field, so they would benefit from a system showing them top companies in the area, average salaries, top skills among IT professionals, options of studies continuity, etc.

How?

Key Business Intelligence System Components

- A Dashboard that students can access online in either desktop or mobile formats.
- A process to obtain updated data about the topics of interest.

Data

- Create a small Database in the Ensign server to store the data.
- Integrate data from Tech websites that already have great information (Ex. Roadmaps for each career.)
- Load it on a monthly basis

Tools

- Microsoft Power BI or Tableau for the dashboard (to be defined).
- SQL Server as the backend database
- Visual Studio Code for writing Python code on automatizations.
- GitHub for code repository

SMPS Research Q and A:

Q1: Existing systems: Do we already have one?

A1: No - my research shows that there is no similar tool available for Students in the tech areas. There are websites with similar information but not an all-in-one with this essential information integrated.

Q2: Feasibility: Any known data or functionality gaps?

A2: See below...

Data Gaps – Most of the data is available on different websites. We use need to figure out how to extract it and consolidate it.

Functionality gaps – We would need some assistance for data gathering process as we currently lack expertise on the field.

Q3: Sustainability: Ongoing resource requirements? Cycle?

A3: See below...

People

We need one Data engineer to take ownership of the ETL process so then the Data Analyst expert can load the information to the BI tool and create the Dashboard. Depending on extra features additional staff may be required.

Cycle

- The expectation is that this Dashboard is updated every month, so the backend data should have a monthly refresh rate.

Q4: Stability: What might threaten the things existence once it is built?

A4: A server outage would be a big threat because the Dashboard would feed from the Data stored there. The Dashboard would also be stored in the Ensign server. Nevertheless, the Ensign server seems to be stable so there shouldn't be great risks.

Another risk could be the unavailability of professionals for Ensign that can help create the project, due to their other responsibilities (they would help for free).

Q5: Vendor options: Are any being considered?

A5: For the moment we are not considering any vendors as the resources would be limited.

Q6: Horizontal expansion requirements: Any new FTE, hardware, or software resources?

A6: No new FTE, one new server, existing software licenses are sufficient.

Q7: Vertical dependencies: Anyone else involved? Especially someone higher up?

A7: The TAs from the IT department need to be involved in the project as they would give valuable feedback on students need. It would also be important to involve the Manager of the IT department.

Q8: College growth rate scenarios

A8: We expect for students to improve their grades and overall skills, being more prepared to apply for internships and jobs in the tech area as they develop top skills and are better informed about key elements of the business.