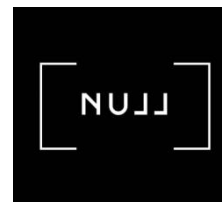Universitè Ibn Khaldoun
Faculty of Mathematics and
Computer Scienc
Department of Informatique

Group NULL

Report about Jasper server

Submitted By:
Chebicheb Kheireddine
Lantri Farouk
Mimoune Abdelazziz

Under The Guidance Of:
Prof.Sir Omar Talbi

14 November 2022

1.1.1.   What exactly is Jasper Server?

Jasper Server is a free and open source business intelligence platform that allows users to access, view, and analyze data from a variety of sources. It is a comprehensive set of tools for creating, deploying, and managing interactive reports, dashboards, and analytics.
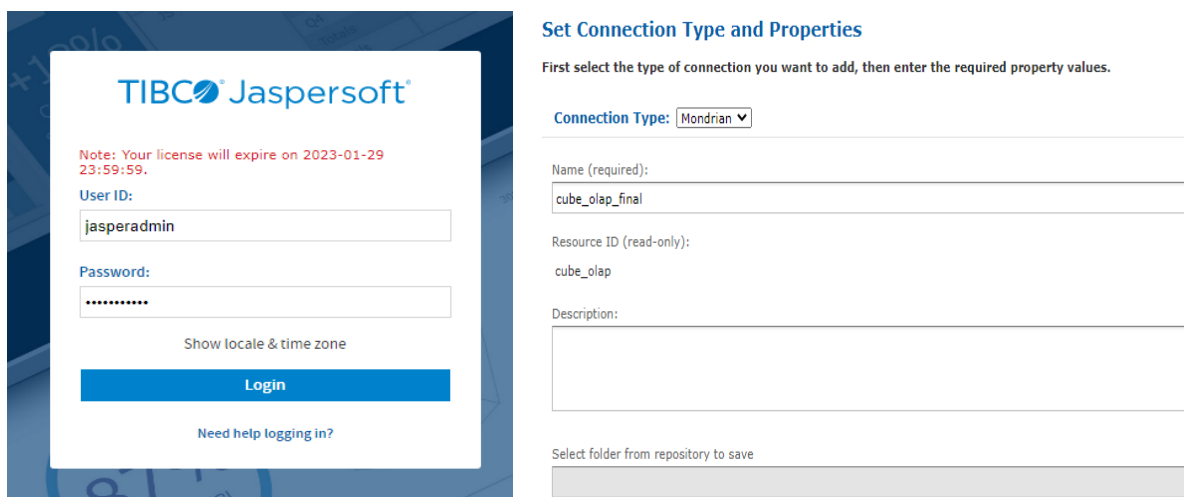
The platform has a user-friendly interface, data integration, reporting, and analytics capabilities, among other things. Additionally, it provides data security, scalability, and performance. Jasper Server is an excellent option for any size corporation seeking to acquire insights into their data and make educated decisions.

1.1.2.   Steps to design the report

To create and design the report, and use the REST API to integrate the report into your front-end application. Here are the general steps you should take:

Step 1: Install and configure JasperReports Server on your PC.

This step entails downloading and installing the JasperReports Server software on the PC or server where you wish to host the front-end. You will also need to set up and configure the server to connect to your OLAP cube data source, which may include setting up a JDBC or XMLA connection.

Figure 1 an example of a log in page and creating a new OLAP data source by giving the OLAP cube schema connection information

Step 2: In Jasper Reports Server, create a new report.

Log in to the web interface and click to the Reports area after the server is up and running.

Choose the option to generate a new report and the OLAP data source that you set up in step 1.

Design and configure the report layout using the web interface, which includes adding dimensions and measurements from the OLAP cube to the report fields and adding tables or crosstabs to present the data.
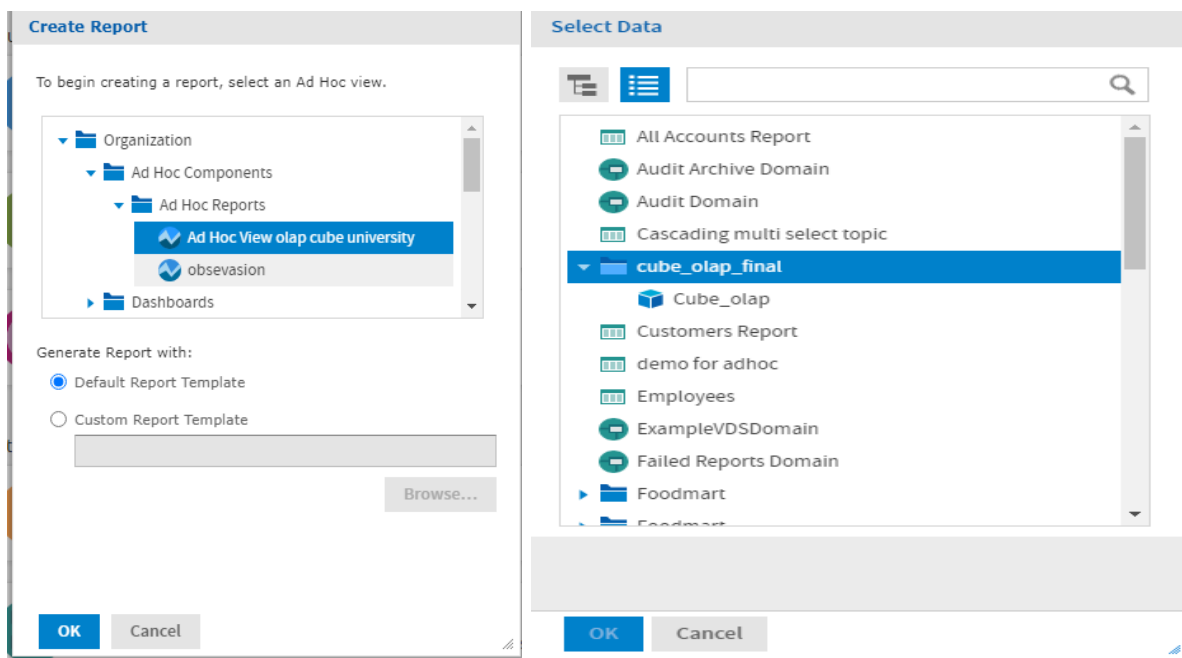

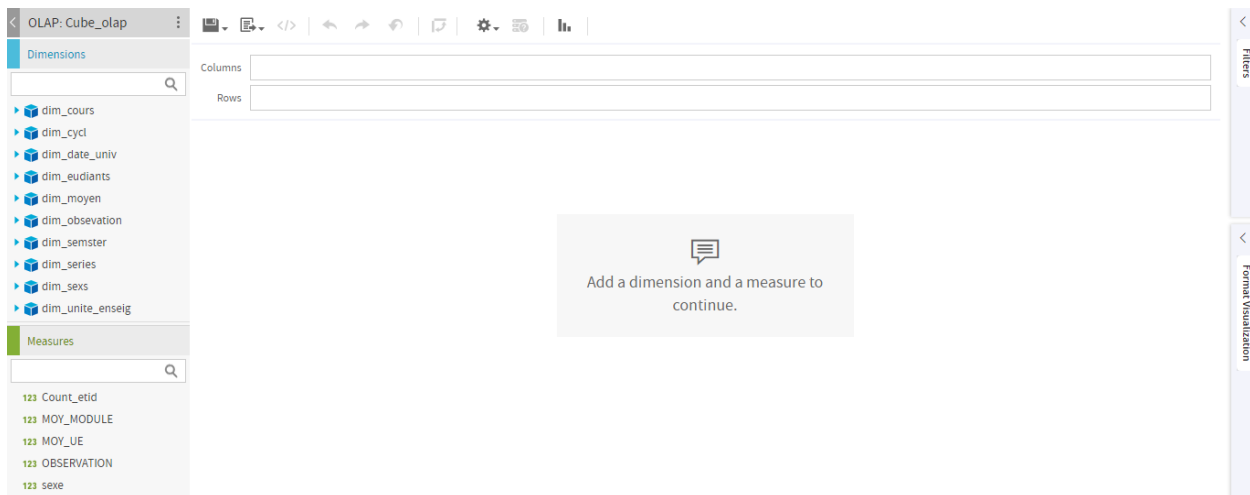Figure 2 An example of how to select data and create a new report

Figure 3 web interface to design and customize the report layout, which will include adding dimensions and measures from the OLAP cube to the report fields,

Step 3: Create charts, graphs, and other visual representations of the data using the built-in charting and visualization tools.

JasperReports Server has a number of built-in chart and graph creation capabilities, such as bar charts, line charts, pie charts, and more.

These tools may be used to generate visual representations of the data from the OLAP cube, making it easier to interpret and analyze the data.
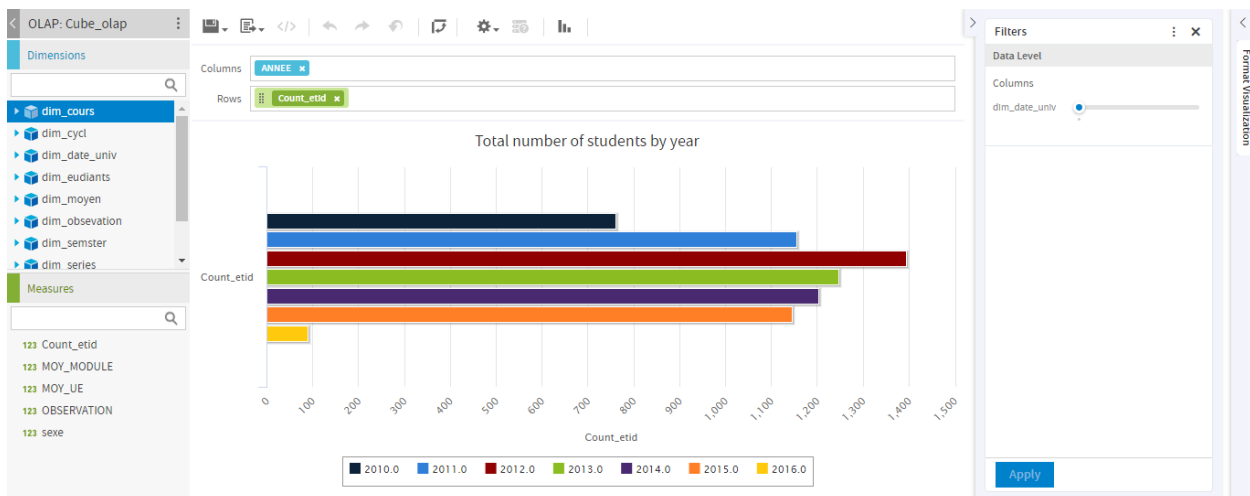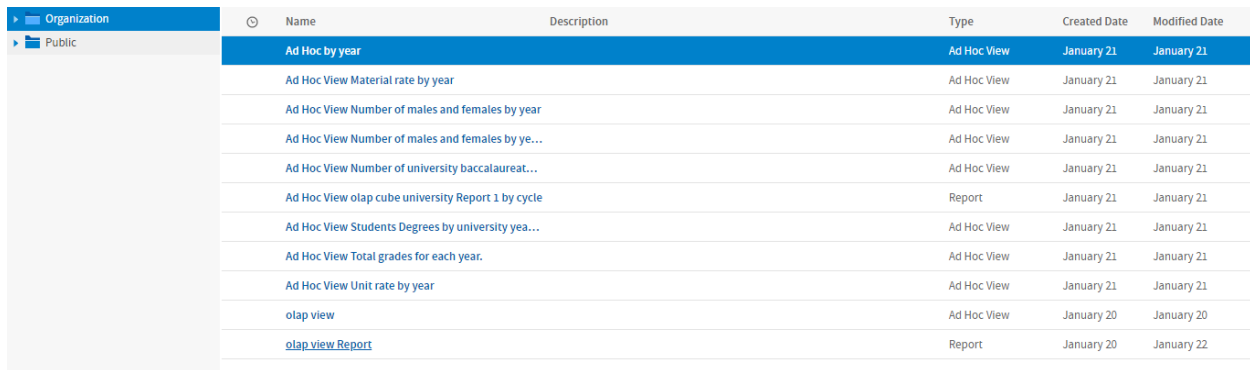

Figure 4 An example of graphs data report

Step 4: Review the report to make sure it shows the data correctly.

Before publishing the report, it must be viewed to ensure that it presents data correctly and that all areas and perceptions work as expected.

Step 5: Upload the report to the JasperReports server, allowing other users to access it and generate customised views.

Once the reports are complete, you may publish them on the JasperReports server for other users to read and engage with. Other users can construct their own views, which allows them to produce bespoke reports based on OLAP cube data.

Name	Description	Type	Created Date	Modified Date
Ad Hoc by year		Ad Hoc View	January 21	January 21
Ad Hoc View Material rate by year		Ad Hoc View	January 21	January 21
Ad Hoc View Number of males and females by year		Ad Hoc View	January 21	January 21
Ad Hoc View Number of males and females by ye…		Ad Hoc View	January 21	January 21
Ad Hoc View Number of university baccalaureat…		Ad Hoc View	January 21	January 21
Ad Hoc View olap cube university Report 1 by cycle		Report	January 21	January 21
Ad Hoc View Students Degrees by university yea…		Ad Hoc View	January 21	January 21
Ad Hoc View Total grades for each year.		Ad Hoc View	January 21	January 21
Ad Hoc View Unit rate by year		Ad Hoc View	January 21	January 21
olap view		Ad Hoc View	January 20	January 20
olap view Report		Report	January 20	January 22

Figure 5 All of our project's reports

[Figure 5] shows us in which year certain subjects were studied. For example:
Students who studied in the year 2015 studied heavy subjects like LCO, TECRX,
which affected their results, causing the most of them to fail as seen in [Figure 56].
And for that, we suggest balancing the subjects in the future.

Figure 6Material rate by year

[Figure 7] shows us the total number of enrolled students each year. For example:
The year 2012 had the most students enrolled, which was a big problem and caused
almost half of them to fail as seen in [Figure 56]. And for that, we suggest putting a
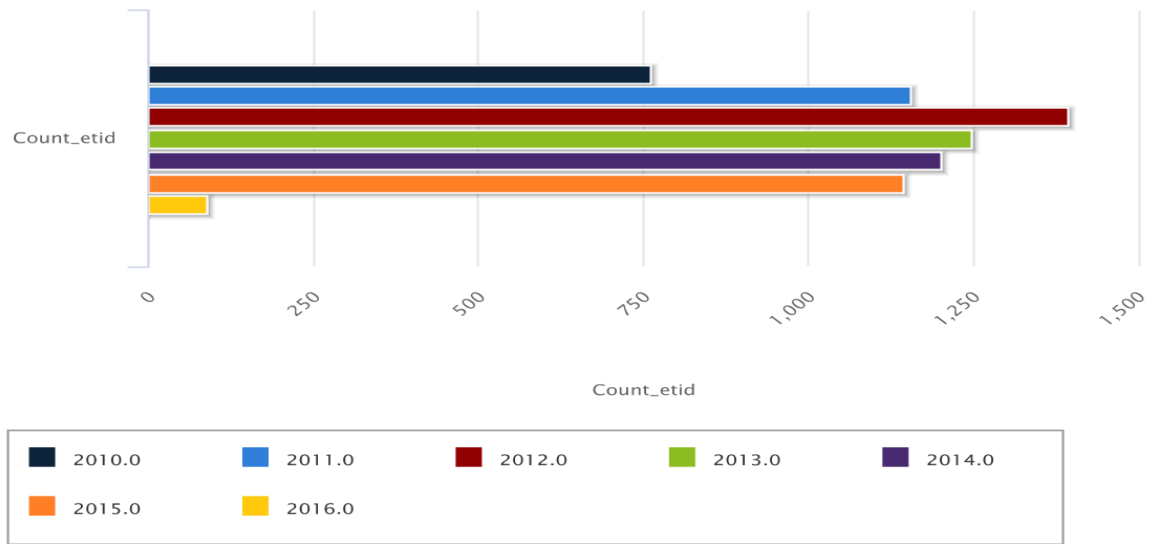limit to how many students can enroll each year in the future.

Figure 7Total number of students by year

[Figure 8] and [Figure 9] show us the distribution of male, female by year across different cycles and specialties of their education. For example: In 2016, we can obviously see that there was an increase in the number of females enrolled. And in that year the success rate was almost 100% as shown in [Figure 12]. And for that, we suggest an increase in the female-to-male ratio.
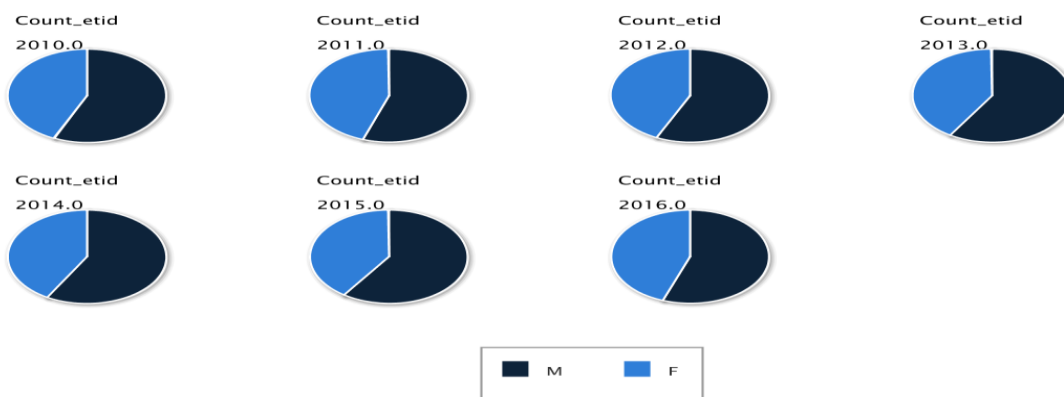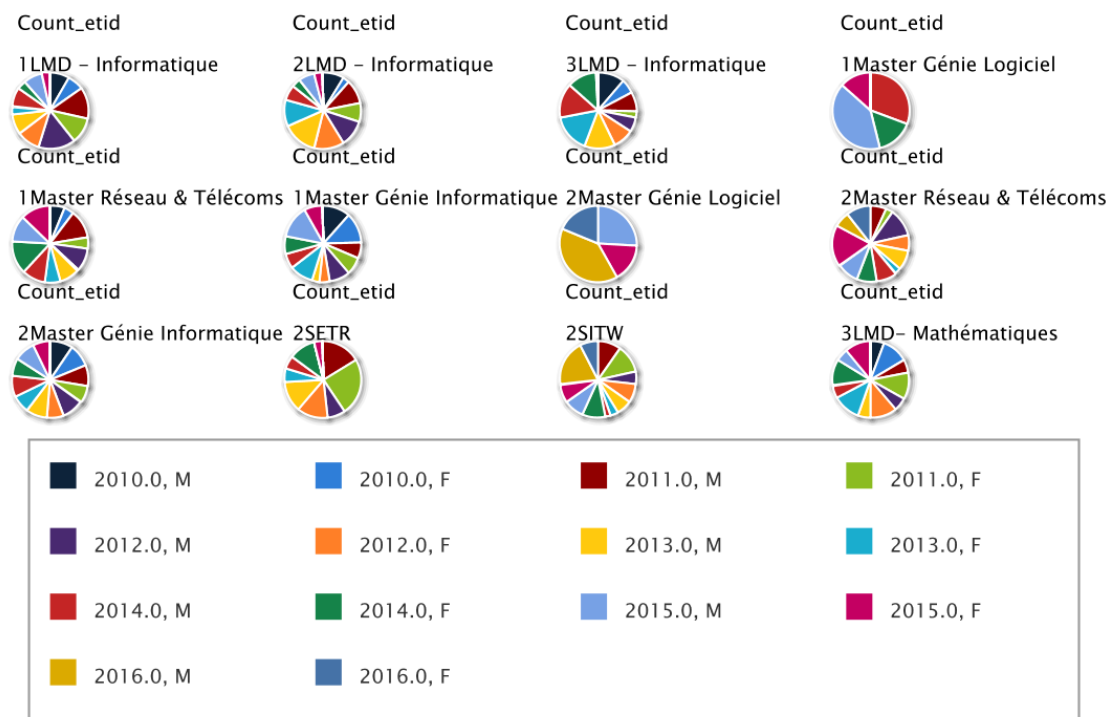

Figure 8Number of males and females by year

Count_etid

1LMD – Informatique

Count_etid

2LMD – Informatique

Count_etid

3LMD – Informatique

Count_etid

1Master Génie Logiciel

Count_etid

1Master Réseau & Télécoms

Count_etid

1Master Génie Informatique

Count_etid

2Master Génie Logiciel

Count_etid

2Master Réseau & Télécoms

Count_etid

2Master Génie Informatique

Count_etid

2SETR

Count_etid

2SITW

Count_etid

3LMD– Mathématiques

■ 2010.0, M	■ 2010.0, F	■ 2011.0, M	■ 2011.0, F
■ 2012.0, M	■ 2012.0, F	■ 2013.0, M	■ 2013.0, F
■ 2014.0, M	■ 2014.0, F	■ 2015.0, M	■ 2015.0, F
■ 2016.0, M	■ 2016.0, F		

Figure 9Number of males and females by year and cycel

[Figure 10] shows us which devision of baccalaureate did the students from each year graduate from. For example: In the year 2011, we see that students enrolled in this university graduated their baccalaureate from all around the devisions, and the highest count graduating from a foreign school. And for that, we suggest and increase in the number of students sent to study abroad.
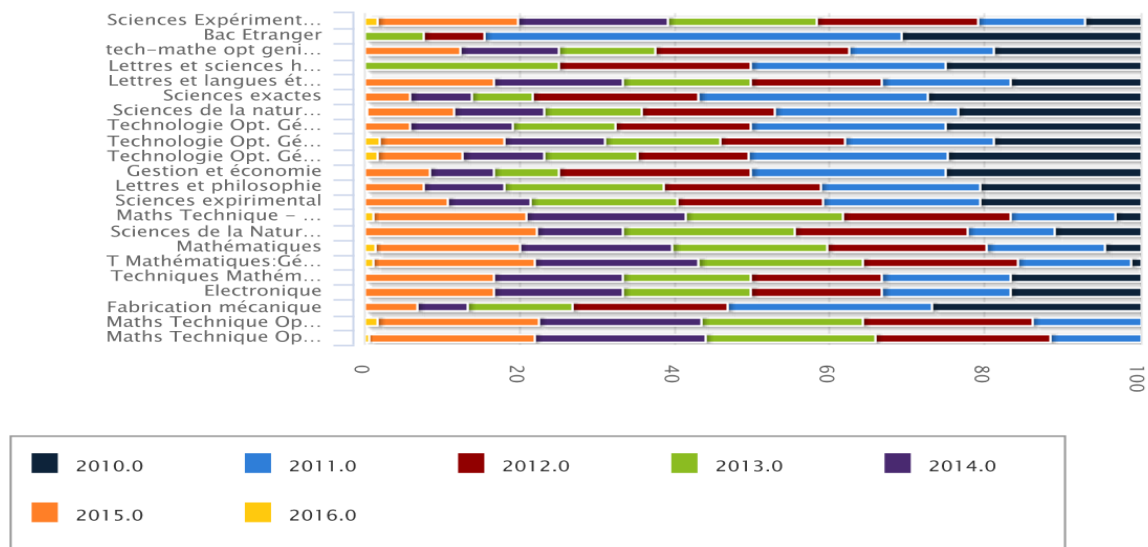

Figure 10Number of university baccalaureate disciplines by year

[Figure 11] and [Figure 12] show us the total number of students per cycle, and their grades. For example: We see that almost all 2nd year LMD students fail the year. And for that, we suggest helping them graduate more by making the subjects easier to understand or having more thought-provoking in-class questions.
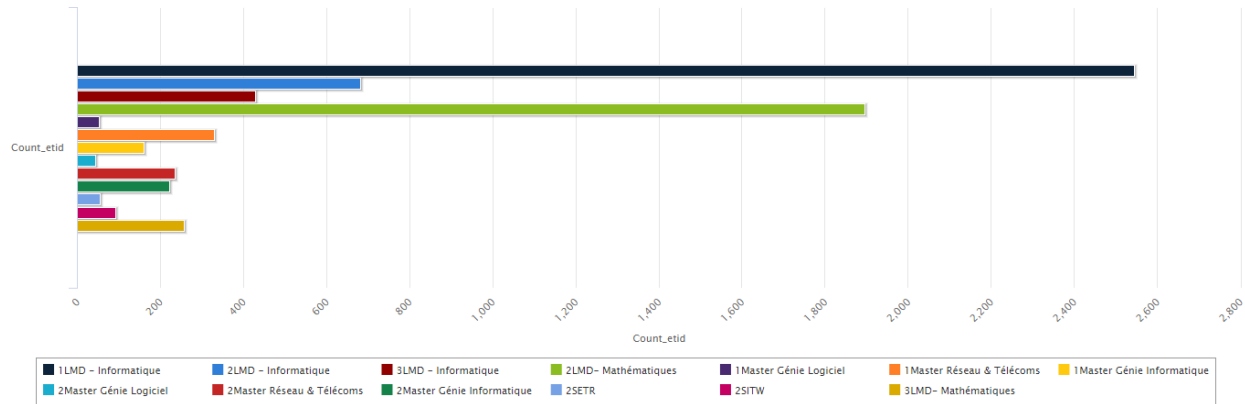

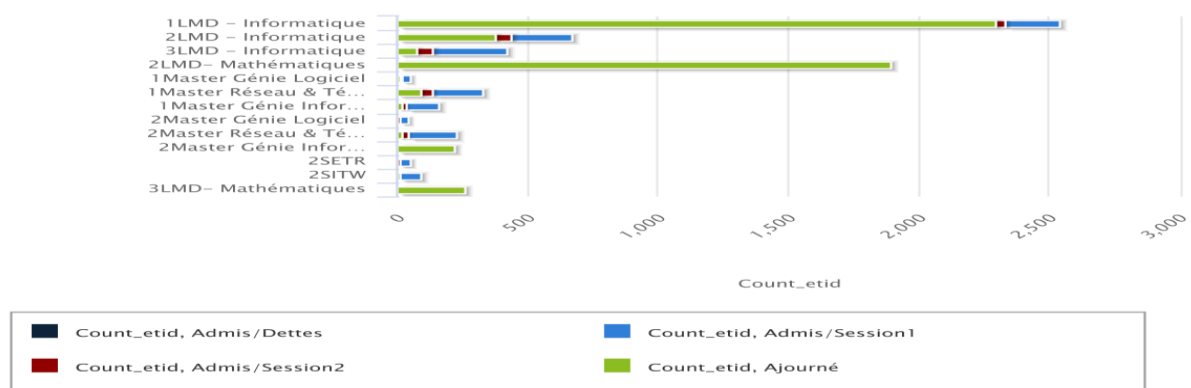Figure 11 Total number of students by cycle

Figure 12 Students Degrees by university years Specialisation.

[Figure 13] helps us understand more by showing us the results of the education, while [Figure 57] shows us which subjects were taught each year. And that helps us know which subjects were hard to teach more than others, and which ones were too hard to teach and therefore discontinued.
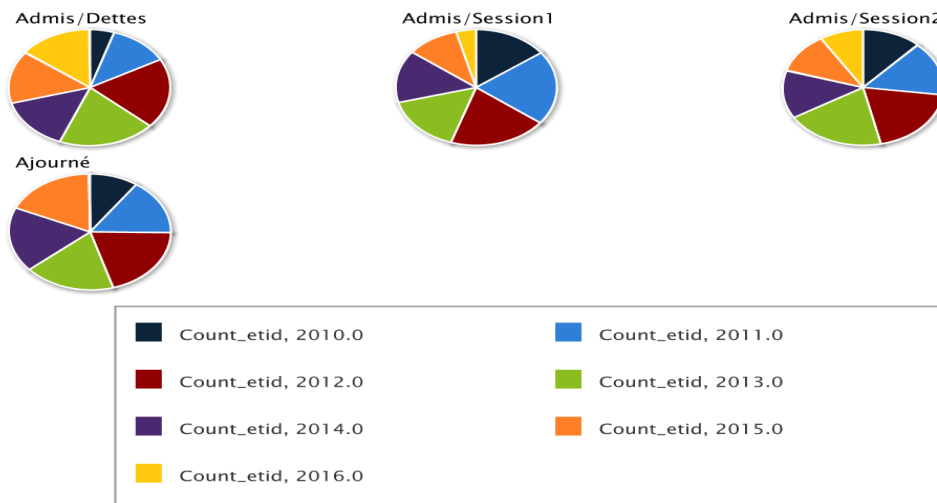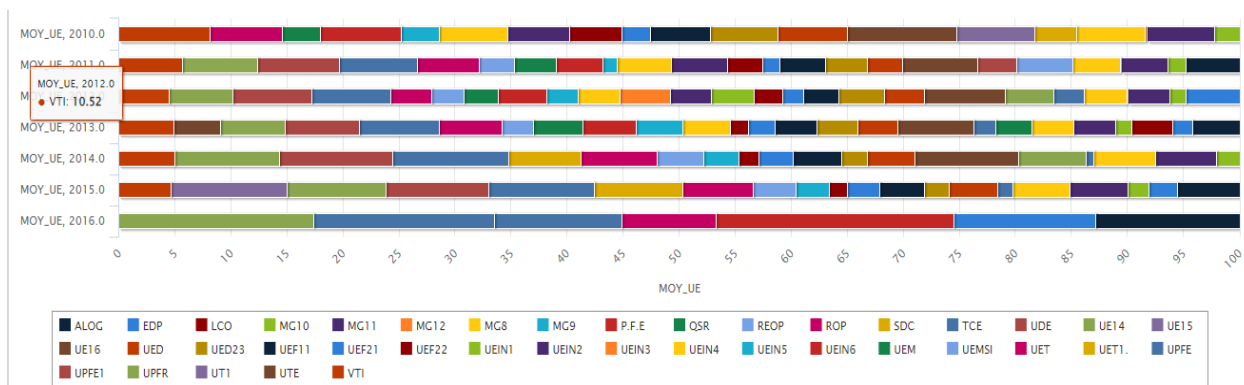
Figure 13 Total grades for each year.

Figure 14 Unit rate by year