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Introduction

MyCore Technologies has taken it upon their selves to develop a market place for used textbooks that can be accessed by students for potential buyers and sellers. All project information was provided in the subject course ITRW 311. However, some alterations will be made to provide an improved decision support system.

With the information we provided in ITRW 213 with the project proposal we presented, our project only satisfies the **S** of the **PIECES** framework meaning the project is a service for the students of the North-West University of the Potchefstroom campus. Furthermore, we can argue that we can also improve the **E** of the **PIECES** framework which is the efficiency of the students' learning, which means they are able to get textbooks quicker and easier, but this is pure speculation at this stage of the project.

With the information provided above, MyCore Technologies' decision support system will only provide statistical analysis for the success of the project.

MyCore Technologies will provide information about the facts required from the database in this report.

Business decisions information

Information of textbooks in the system

The North-West University of Potchefstroom would like to know all information about the textbooks in the system.

Total number of advertisements, requests and successful advertisements and requests:

- Per year, per semester and per month.
- Per province, per faculty and per hostel.

Business area

The acquisition department of North-West University of Potchefstroom will use this information and share it with bookstores to limit the number of textbooks they purchase.

The I.T. department of North-West University of Potchefstroom will use this information to determine the success of the system while in use.

The marketing department of North-West University of Potchefstroom will use this information to decide if advertisements within the application can be used for possible revenue.

The 2HB bookstore can use this information to evaluate the competition.

Level of organization

All management employees mentioned in the department in the business area.

Aggregation required

Count of advertisements placed.

Count of requests placed.

Count of successfully processed advertisements.

Count of successfully processed requests.

Count of successfully processed textbooks.

Percentage of successfully processed textbooks.

Timespan

This information will be sorted by year, semester and month.

Format of information

The total advertisements and requests will be displayed with the use of a bar chart.

The total successfully processed advertisements and requests will be displayed with the use of a bar chart.

The count of advertisements and requests satisfied will be displayed with the use of a bar chart.

The percentage of advertisements and requests satisfied will be displayed with the use of a pie chart.

The percentage of successfully processed textbooks in the system will be displayed with the use of a pie chart.

The information can be drilled down in the following order if needed.

- Time
 - All information of textbooks can be displayed per year.
 - All information of textbooks can be displayed per semester.
 - All information of textbooks can be displayed per month.
- Location
 - All information of textbooks can be displayed per province where the students originate from.
 - All information of textbooks can be displayed per faculty the student is enrolled in.
 - All information of textbooks can be displayed per hostel the student is residing.

Dimensionality of information

- Time
 - Year
 - Semester
 - Month
- Location
 - Province
 - Faculty
 - Hostel

Possible price of textbooks per subject code

The person/s responsible for the payment of studies would like to know the possible price of textbooks each semester for their student/s.

Average price of textbooks placed:

- Per semester.
- Per faculty.
- Per successful sale.
- Per subject code.

Business area

The person/s responsible for the payment of studies, for example:

- Parents
- Students
- Organizations
- Lecturers
- Professors

Level of organization

This information will be available to the public for anyone who wishes to see it.

Aggregation required

Average price of successfully processed textbooks.

Timespan

This information will be sorted by semester.

Format of information

Average price of textbooks moving through the system will be displayed with the use of a line chart.

The information can be drilled down in the following order if needed.

- Time
 - The average price of the textbooks moving through the system can be displayed per semester.
- Location
 - The average price of the textbooks moving through the system can be displayed per faculty the student is enrolled in.
- Successfulness
 - Textbooks successfully sold using the system.
- Textbook information
 - The average price of the textbooks can be shown by subject code.

Dimensionality of information

- Time
 - Semester
- Location
 - Faculty
- Successfulness
 - Successful
- Textbook information
 - Subject code

Average price of textbooks

The North-West University of Potchefstroom would like to know the average price of the textbooks moving through the system.

Average price of textbooks placed:

- Per year and per semester.
- Per successful sale and per unsuccessful sale.
- Per subject code.
- Per author.
- Per textbook edition.

Business area

The marketing department of North-West University of Potchefstroom will use this information to determine the statistical information of students passing a subject based on the number of textbooks sales for that subject.

The acquisition department of North-West University of Potchefstroom will use this information to determine whether to change the pre-described textbooks for a certain subject.

Level of organization

Any qualified person/s responsible for the changes in the departments mentioned in the business area.

Aggregation required

Average price of successfully processed textbooks.

Average price of unsuccessfully processed textbooks.

Timespan

This information will be sorted by year and semester.

Format of information

Average price of textbooks moving through the system will be displayed with the use of a bar chart.

The information can be drilled down in the following order if needed.

- Time
 - The average price of the textbooks moving through the system can be displayed per year.
 - The average price of the textbooks moving through the system can be displayed per semester.
- Successfulness
 - Textbooks successfully sold using the system.
 - Textbooks unsuccessfully sold using the system.
- Textbook information
 - The average price of the textbooks can be shown by subject code.
 - The average price of the textbooks can be shown by author.
 - The average price of the textbooks can be show by textbook edition.

Dimensionality of information

- Time
 - Year
 - Semester
- Successfulness
 - Successful
 - Unsuccessful
- Textbook information
 - Subject code
 - Author
 - Textbook edition

Number of offences

The North-West University of Potchefstroom would like to know the number of rule-breaking users on the system.

Offences committed:

- Per year, per semester and per month.
- Per province, per faculty and per hostel.
- Per banned and per warned.

Business area

The student council of North-West University of Potchefstroom will use this information to determine the students that are breaking the service policy rules.

The disciplinary comity of North-West University of Potchefstroom will use this information to take disciplinary actions against serious offenders of the university rules.

Level of organization

Any person/s responsible for student relations in the departments mentioned in the business area.

Aggregation required

Count of warned students for offences.

Count of banned students for offences.

Timespan

This information will be sorted by year, semester and month.

Format of information

Number of rule-breaking students in the system will be displayed with the use of a bar chart.

The information can be drilled down in the following order if needed.

- Time
 - Number of rule-breaking students can be displayed per year.
 - Number of rule-breaking students can be displayed per semester.
 - Number of rule-breaking students can be displayed per month.
- Location
 - Number of rule-breaking students can be displayed per province where the students originate from.
 - Number of rule-breaking students can be displayed per faculty the student is enrolled in.
 - Number of rule-breaking students can be displayed per hostel the student is residing.
- Offence
 - The number of rule-breaking students banned from the system.
 - The number of rule-breaking students warned in the system.

Dimensionality of information

- Time
 - Year
 - Semester
 - Month
- Location
 - Province
 - Faculty
 - Hostel
- Offence
 - Banned
 - Warned

Conclusion

MyCore Technologies decided that the decision support system for this service requires the information of facts discussed above drawn from the database. This information is a summary of all the information gathered from the students.