

Specification of business processes

1. Business goals of the organization

Gdańsk University of Technology is a university in Poland that specializes in educating young people in the field of science. The learning process is divided into semesters. There are options for full-time and extramural studies. Depending on a given course, students graduate with bachelor or engineering degrees. After that, they can continue their studies to get a master's degree.

The main goal of the university is to achieve the highest possible number of students with available resources. To achieve this goal, the dean wants to increase the number of students in the next year by 5%. Because of that Gdansk University of Technology will monitor two metrics: number of students at the whole university and at each department after the start of each semester. The university is considered successful when there is a rising trend for both metrics at a level not lower than 2.5% per semester.

2. Business processes

Recruitment process:

1. Once every half a year there is a recruitment process ongoing. Students use a dedicated website to choose their preferred courses of study and rank from those that they want to study the most and the least. After the deadline, each student has their grade calculated based on the A levels grades. For a specific course, students with the highest scores are selected until the course is full. For students that were unable to get on the list at their first preference course, score for next pick is calculated until the student is assigned to one of the courses or they ran out of preferred courses.

a. Typical questions:

- What are the most popular courses?
- Which course has the fastest growth rate?
- Compare the number of students between departments.
- Compare the number of students at a given department with the number from last year.
- Compare the number of students at each course in a given department.
- What are the most popular departments?
- Which department lost the most students in comparison to the previous year?
- What is the least popular department?
- What is the least popular course?
- How many students are there on the least popular course?

b. Data

All the data about the students are extracted from the system “MojaPG”. The system stores the information about the students and courses that they are enrolled in.

Creating schedule:

2. At the beginning of each semester, every department creates a timetable for students. During the process of creating a timetable, the number of students at a given course has to be taken into consideration as well as the size of a given building, its capacity, availability of a given type of classroom and so on.

a. Typical questions:

- What are the most frequently used classrooms?
- What is the average occupancy of the particular department?
- Compare the average occupancy of the particular department this year and previous.
- What is the occupancy of the particular department between 11:00 and 12:00?
- What is the least used classroom?

- Which classrooms of the particular department are empty between 11:00 and 12:00?
- Which are the most crowded departments (num of students / space)?

b. Data

All the data about departments are extracted from the system “SIS”. The system stores data concerning occupation of classes, capacity of classes and what subjects are conducted there.