

SMS

School Management System



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Introduction

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- ❑ A School Management System is a large database system which can be used for managing school's daily work.
- ❑ It is configurable and can be configured to meet most individual school's needs.
- ❑ It is a multi-user system and can be used by thousands of users at same time.
- ❑ General speaking, it is platform running on a Local Area Network (LAN).



Motivation

- Introduction
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Motivation (1)

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- Every School is working on a developed strategy which aims the development of scalable structures in all the high schools of their respective countries.
- Most of the high schools are already equipped with necessary hardware and network structures .
- Open issue:
 - ▣ Managing the information electronically.
- Solution:
 - ▣ School Management System

Motivation (2)

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- Goals:
 - ▣ managing information on students,
 - ▣ employees,
 - ▣ teaching processes
 - ▣ etc...

- Initiative of a Professional High School .

System Development

- Introduction
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System Development



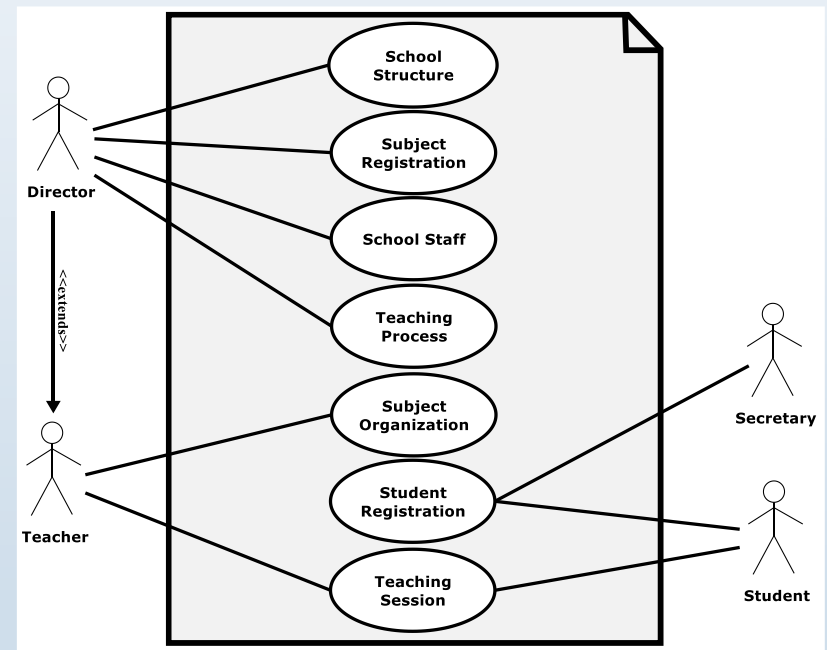
System Development

- Analysis and Definition
- Design
 - ▣ Data Model
 - ▣ Software Model
- Implementation

Analysis & Definition

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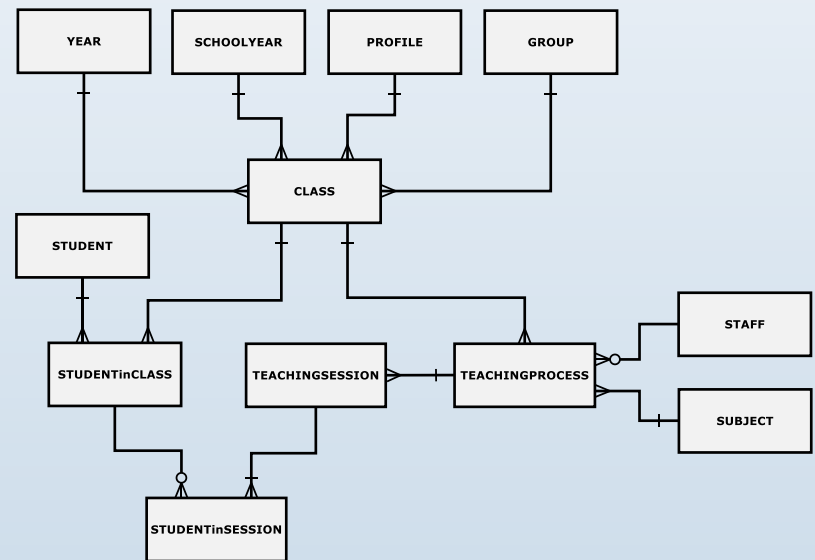
- The requirements specification document was created.
- Existing documents were a good reference.



Design (Data Model)

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- We made decisions regarding how best to take the system in the real world and model it in a database.
- A well-designed database takes time and effort to conceive, build and refine.



Design (Software Model)

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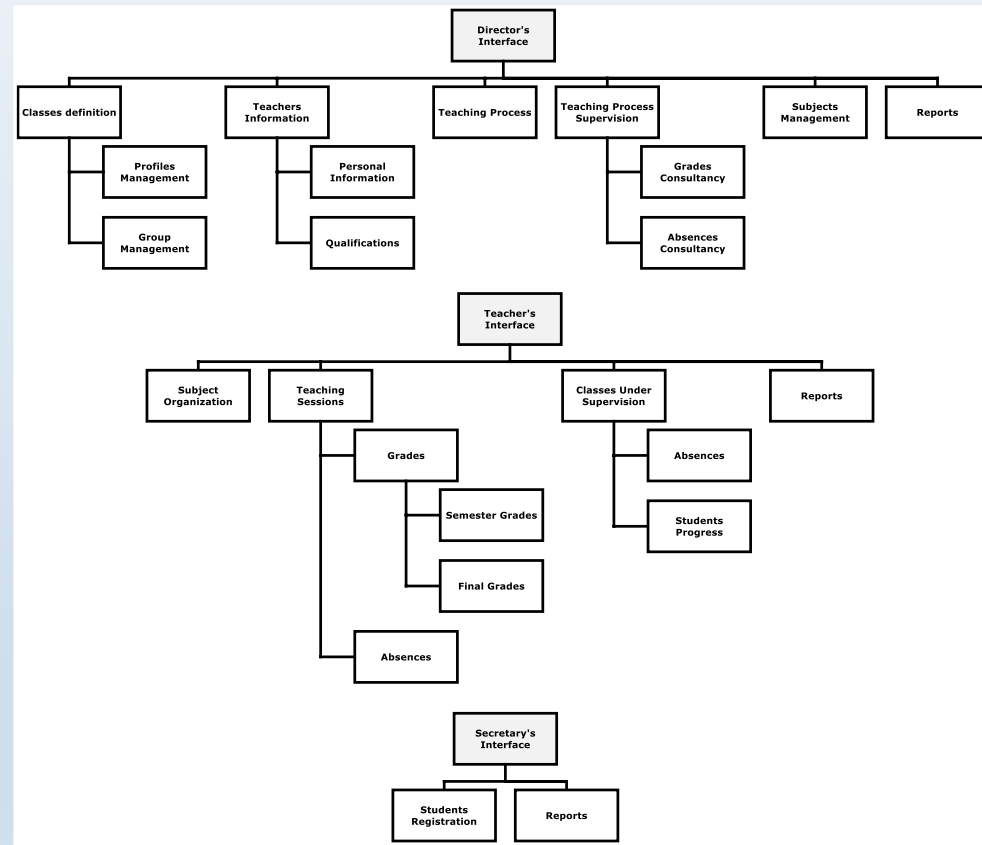
- ❑ Object-Oriented Modeling technique.
- ❑ Designed in order to define a good ORM.
- ❑ The model better describes interactions and relationships between objects representing real life entities.

Implementation

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- 3 levels of users with different rights upon the data/information that can be stored, retrieved or modified:

- Director
- Teachers
- Secretary





Conclusions

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Technologies

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- ❑ Java 8
- ❑ Spring / Spring Boot
- ❑ Spring Securities
- ❑ PostgreSQL
- ❑ Tomcat 8
- ❑ Hibernate

Benefits of our Technologies

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- ❑ Java based systems are the most secured systems in the world.
- ❑ Securities that we provide will be of OWASP standards.
- ❑ Hack proof systems.
- ❑ Multithreaded.
- ❑ Can be accessed from anywhere in the world.
- ❑ Staging of Roles.

Conclusions

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- The need of managing the information electronically is growing rapidly in all important areas.
- School Management Systems are being identified as an appropriate method for managing information in schools.
- SMS was built based on real life situations in high school, taking into consideration all possible situations and functionalities of the daily work in these schools.
- This system maybe considered as a good first step in implementing performing electronic based information management in schools.



Thank You!