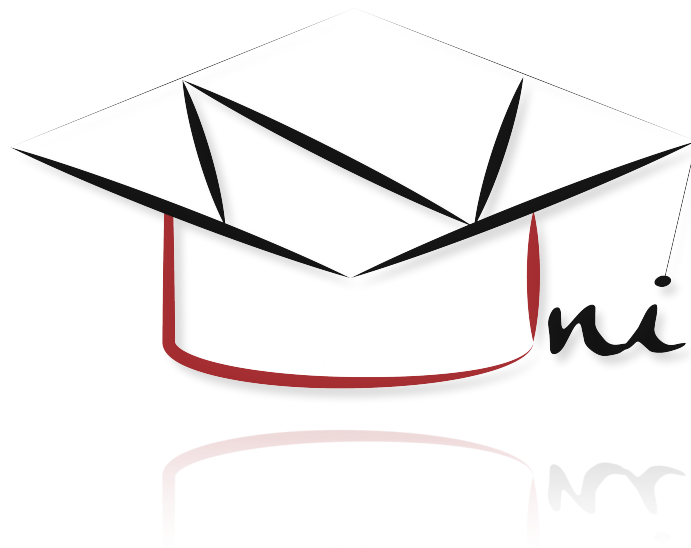


# VnUni

*Object Oriented Analysis and Design*



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# Course project

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## Requirement

Give the analysis and design documentation of the software.

## Overview

VnUni is a website for high school students to get information about Vietnamese universities' recruitment. This report is the documentation for our website including three main parts: software's requirement, analysis and design.

## Acknowledgment

We would like to express our special thanks to Dr. Truong Ninh Thuan who gave us the enthusiastic instruction and support.

We would like to thank Team OOAD K56CA for their "YouTube Video Player" report that we used as reference and sample document.

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# 1. Requirements

## 1.1. Problem statement

There are millions of high school students constantly taking university entrance examination every year in Vietnam. Due to the great number of enquiries about universities' and colleges' information on majors, quality teaching, admission marks, etc from students and their parents, many kinds of handbooks and websites are being published with diverse and up-to-date data to meet this demand.

However, these sources are sometimes not reliable; the interface is not friendly and unscientific – which make users confused and worried. To tackle this issue, we want a useful website called VnUni for students to help them approach easily the necessary information about universities and colleges by a brand-new way, which would hopefully become a trustful connection between students and schools in near future.

This website provides an information search engine based on different filters: location, majors, recently admission marks, etc. Moreover, users could have an objective and comprehensive view with “Comparison and Ranking” function that compares and rates schools according to various criteria.

Each university or college is supplied with a separate account to log in the system so that they could modify their data very conveniently.

This website must have an administrator that manages all operations of the system: add/remove a school, add/remove a user, modify database. Anonymous users must not have the privilege to register a new school account. It is only provided by administrator.

Users could connect to VnUni via client devices such as laptops, PC, tablets or smartphones.

- 1.2. Glossary
- 1.3. Supplementary Specification
- 1.4. Use-case model
  - 1.4.1. Use application
  - 1.4.2. Manage database

## **2. Analysis**

- 2.1. Architectural Analysis
  - 2.1.1. High-level Component
  - 2.1.2. Key Abstractions
- 2.2. Use-case Analysis
  - 2.2.1. Interaction diagrams
  - 2.2.2. Use-case Realization View of Participating Class (VOPCs)
  - 2.2.3. Analysis mechanism
  - 2.2.4. Unify analysis classes

## **3. Design**

- 3.1. Identify Design Elements
  - 3.1.1. Subsystem Context Diagram
  - 3.1.2. Analysis Class to Design Element map
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- 3.5. Subsystem Design
- 3.6. Class Design
  - 3.6.1. Describe each class, interface and relation in each package
  - 3.6.2. Class diagram in total

## **Appendix A - Figures**