<<ACADEMIC BLOG AT FPTU>>

Software Design Document

– Hanoi, April 2021 –

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I. Overview

1. Code Packages/Namespaces

[Provide the package diagram for each sub-system. The content of this section including the overall package diagram, the explanation, package and class naming conventions in each package. Please see the sample and description table format below – following Java project naming convention]
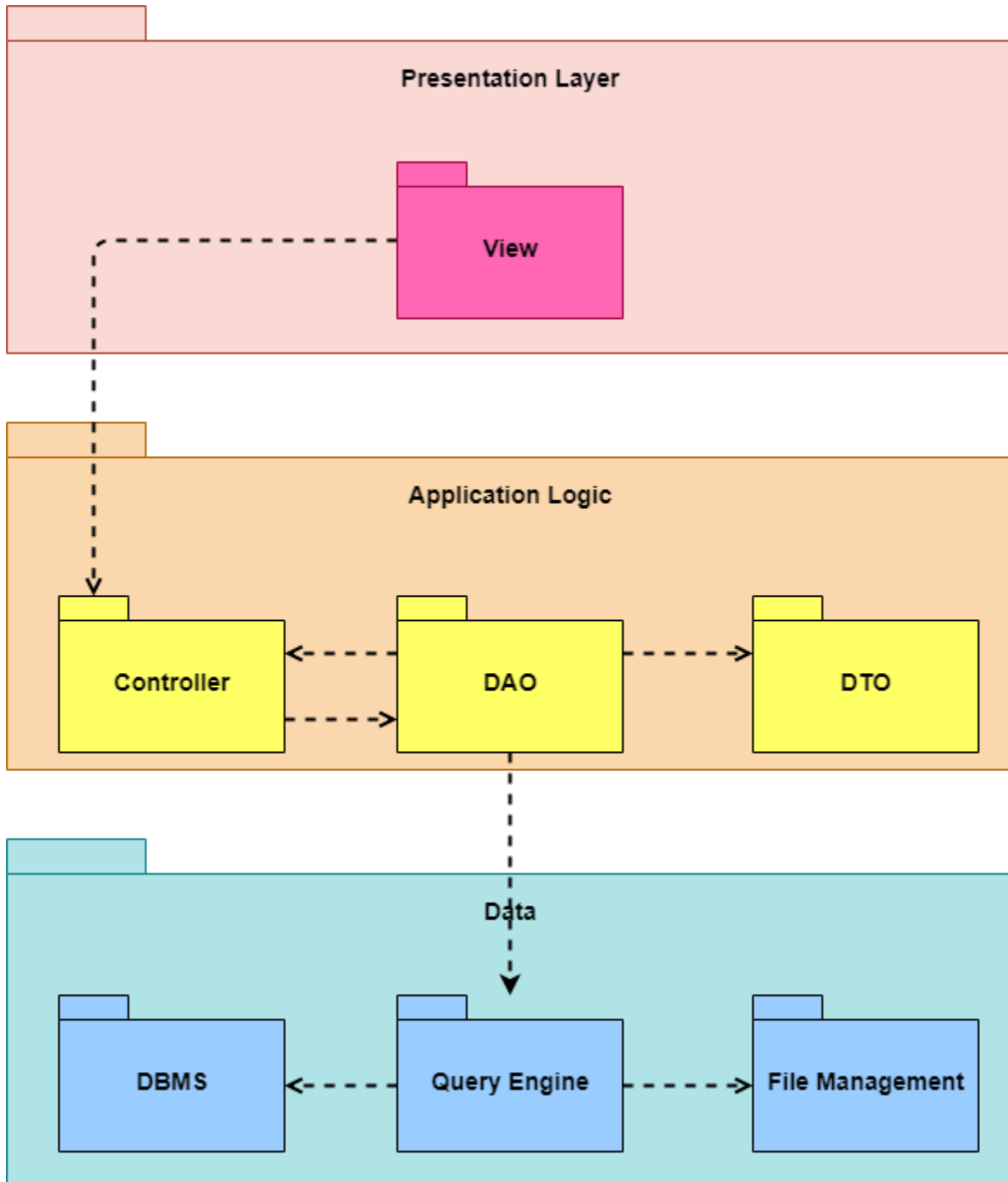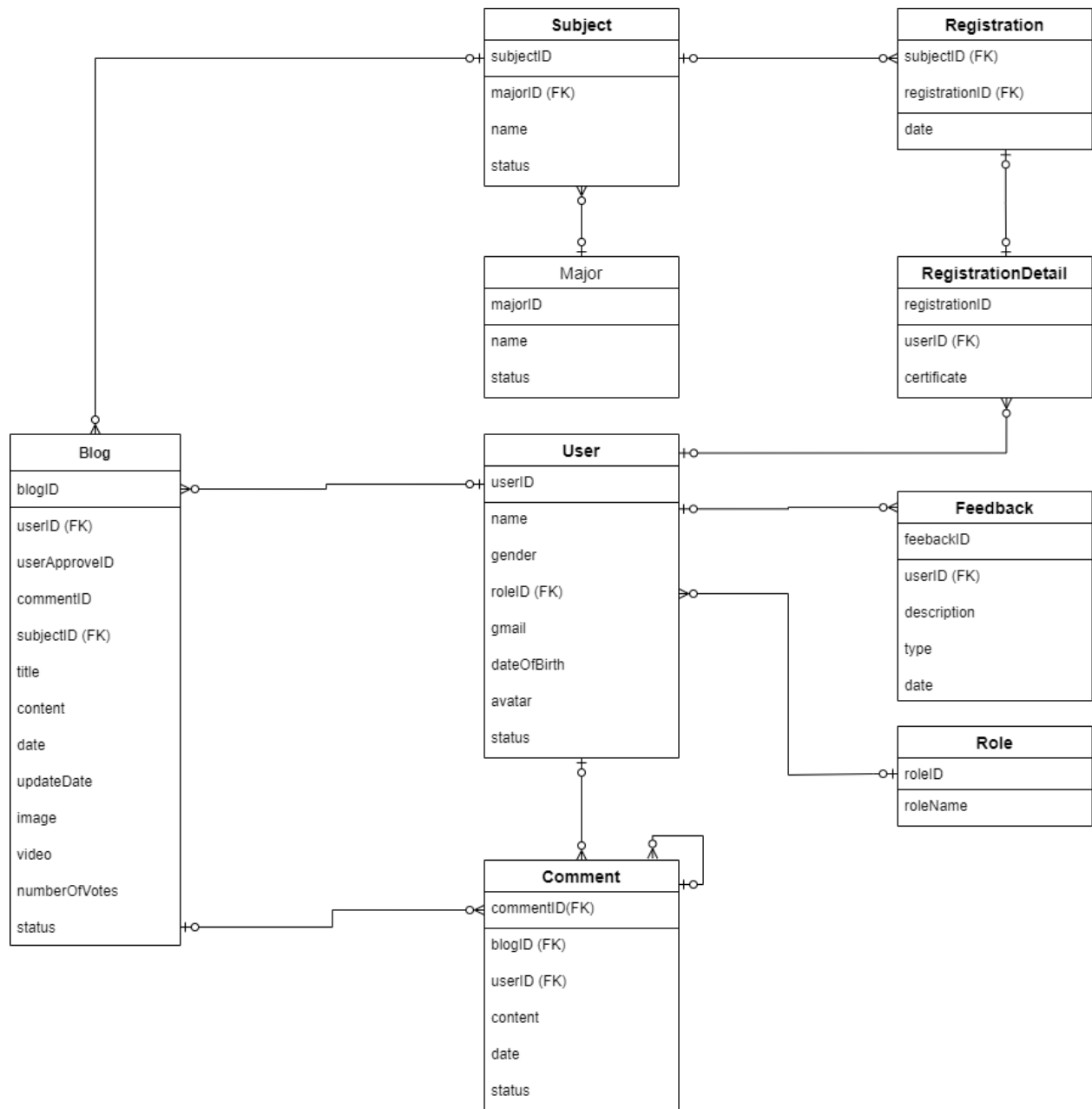
Package descriptions & package class naming conventions

No	Package	Description
01	View	This is where the JSP pages do the work of displaying the user interface. The first word is in lower case (camel case notation).
02	Controller	Functional controllers will be passed through the MainController to execute its functions. Capital letters at the beginning of each word , according to the syntax: Verb+Controller
03	DAO	Contains functions that execute commands related to handling the database. Nouns, capital letters for each word. Write whole words, avoid abbreviations.
04	DTO	
05	DBMS	
06	Query Engine	
07	File Management	

2. Database Schema

[Provide the tables relationship like example below – following MySQL database naming convention]

Subject
- subjectID
- majorID (FK)
- name
- status

Registration
- subjectID (FK)
- registrationID (FK)
- date

Major
- majorID
- name
- status

RegistrationDetail
- registrationID
- userID (FK)
- certificate

Blog
- blogID
- userID (FK)
- userApproveID
- commentID
- subjectID (FK)
- title
- content
- date
- updateDate
- image
- video
- numberOfVotes
- status

User
- userID
- name
- gender
- roleID (FK)
- gmail
- dateOfBirth
- avatar
- status

Feedback
- feebackID
- userID (FK)
- description
- type
- date

Role
- roleID
- roleName

Comment
- commentID(FK)
- blogID (FK)
- userID (FK)
- content
- date
- status

Table descriptions & package class naming conventions are as below

No	Table	Description
01	tblBlog	- Primary keys: BlogID - Foreign keys: UserID, CommentID, SubjectID - UserApproveID - Title - Content - Date - UpdateDate
02	tblUser	- Primary keys: UserID - Foreign keys: RoleID - Name

		- Gender
		- Gmail
		-
03	*tblMajor*	- Contains information and status of majors
04	*tblSubject*	The table contains information about a specific subject such as the subject's id, the name of that subject, the major to which that subject belongs, and the status of that subject.
		- Primary keys: subjectID
		- Foreign keys: majorID
05	*tblComment*	The table contains information that the comment should have such as the id, the id of the blog to which the comment belongs, who owns this comment, the content of the comment, the date the user left the comment, and the status of that comment.
		- Primary keys: commentID
		- Foreign keys: blogID, userID, commentID
06	*tblRegistration*	
07	*tblRegistrationDetails*	
08	*tblFeedback*	- Contains feedback from students sent to admin
		- Primary keys: FeedbackID
		- Foreign keys: UserID
09	*tblRole*	- The role of the female role name is conventional
		- Primary keys: RoleID
		- Foreign keys: UserID

1. Table <tblBlog>

Column Name	Data Type	Allow Nulls
🔑 BlogID	int	☐
UserID	int	☐
UserApproveID	int	☐
CommentID	int	☐
SubjectID	int	☐
Title	nvarchar(250)	☐
[Content]	nvarchar(MAX)	☐
Date	nvarchar(50)	☐
UpdateDate	nvarchar(50)	☑
Image	image	☑
Video	nchar(10)	☑
NumberOfVote	int	☐
Status	nvarchar(50)	☐

2. Table <tblUser>

Column Name	Data Type	Allow Nulls
🔑 UserID	int	☐
Name	nvarchar(250)	☐
Gender	nvarchar(50)	☐
RoleID	int	☐
Gmail	nvarchar(255)	☐
DateOfBirth	nvarchar(50)	☑
Avatar	image	☑
Status	nvarchar(50)	☐

3. Table <tblFeedback>

Column Name	Data Type	Allow Nulls
🔑 FeedbackID	int	☐
UserID	int	☐
Description	nvarchar(MAX)	☐
Type	nvarchar(250)	☐
Date	nvarchar(50)	☐

4. Table <tblRole>

Column Name	Data Type	Allow Nulls
🔑 RoleID	int	☐
RoleName	nvarchar(50)	☐

5. Table <tblMajor>

Column Name	Data Type	Allow Nulls
🔑 MajorID	int	☐
Name	nvarchar(250)	☐
Status	nvarchar(50)	☐

6. Table <tblSubject>

Column Name	Data Type	Allow Nulls
🔑 SubjectID	int	☐
MajorID	int	☐
Name	nvarchar(250)	☐
Status	nvarchar(50)	☐

7. Table <tblRegistration>

8. Table <tblRegistrationDetails>

9. Table <tblComment>

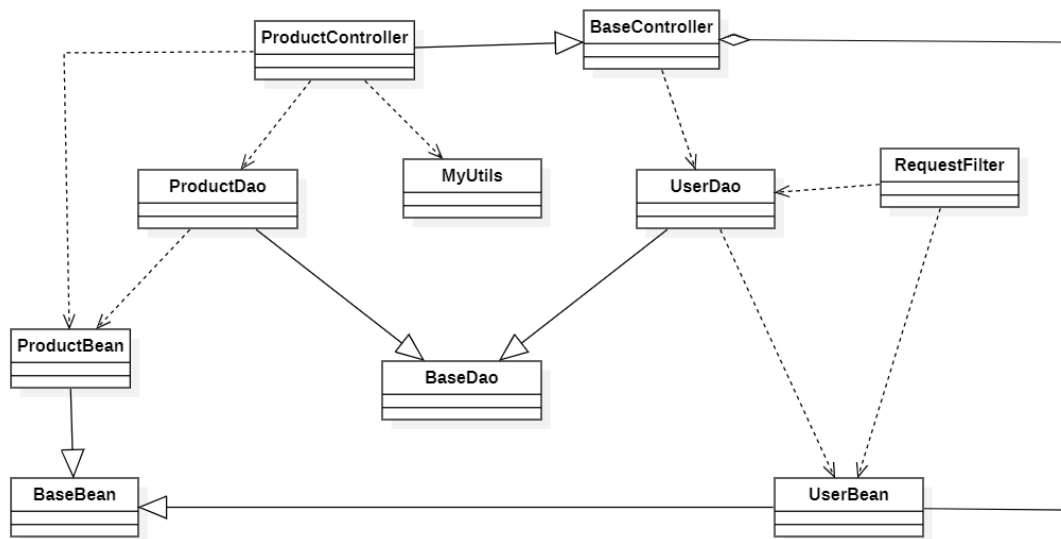| Column Name	Data Type	Allow Nulls
🔑 CommentID	int	☐
BlogID	int	☐
UserID	int	☐
[Content]	nvarchar(MAX)	☐
Date	nvarchar(50)	☐
Status	nvarchar(50)	☐

II. Code Designs

1. <Feature/Function Name1>

[Provide the detailed design for the function <Feature/Function Name1>. It include Class Diagram, Class Specifications, and Sequence Diagram(s)]

a. Class Diagram

[This part presents the class diagram for the relevant feature]

b. Class Specifications

[Provide the description for each class and the methods in each class, following the table format as below]

XYZ Class

[Provide the detailed description for the class methods]

No	Method	Description
01	*<method name>*	*<Description of the method, including the inputs, outputs & internal method processing>*

ABC Class
Class Methods

[Provide the detailed description for the class methods]

No	Method	Description
01	*<method name>*	*<Description of the method, including the inputs, outputs & internal method processing>*

c. Sequence Diagram(s)

[Provide the sequence diagram(s) for the feature, see the sample below]
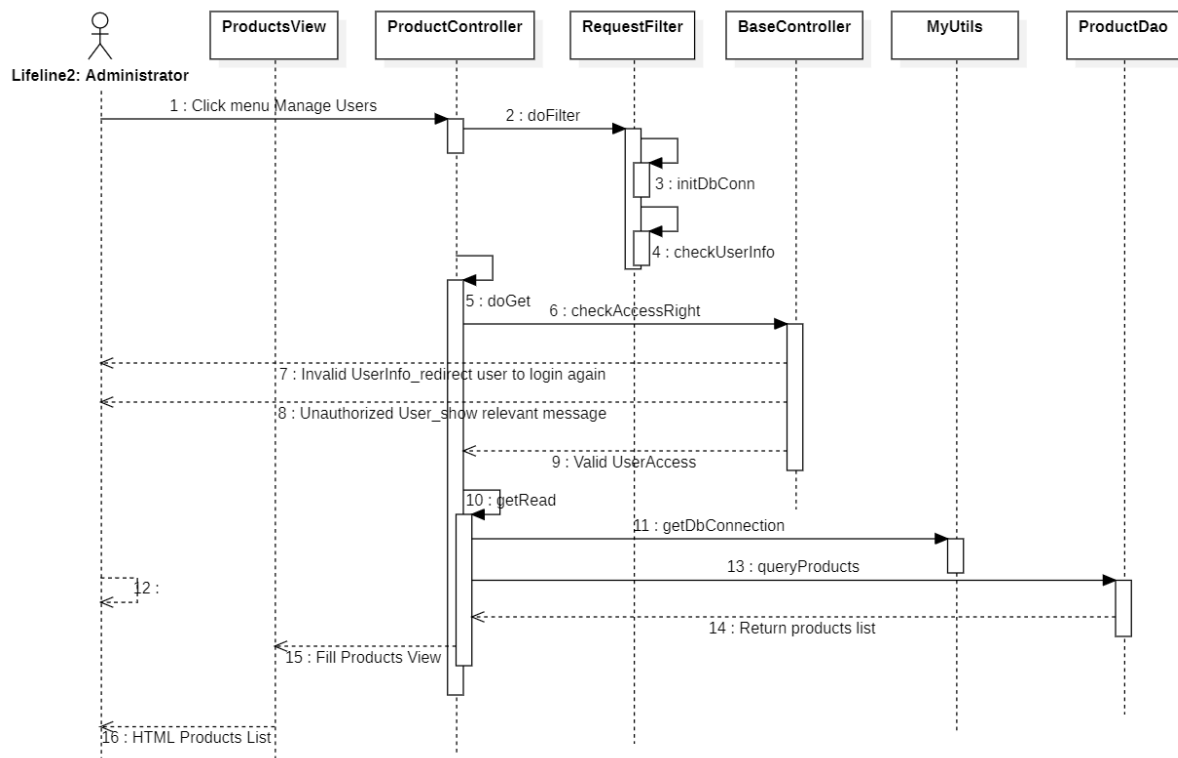
d. Database queries

[Provide the detailed SQL (select, insert, update...) which are used in implementing the function/screen]

2. <Feature/Function Name2>

…

III. Database Tables

1. <Table name 1>

[Give some lines about the table here>>
[Table fields, in the form of table format as below]

#	Field name	Type	Size	Unique	Not Null	PK/FK	Notes
1	Field name1						
2	Field name2						

2. <Table name 2…>