

《软件系统分析与设计》期末考试试题(电子)

(考试形式：开卷 考试时间：3 小时)



《中山大学授予学士学位工作细则》第六条

考试作弊不授予学士学位

方向：_____ 姓名：_____ 学号：_____

出卷：_____ 潘茂林 _____ 审核：_____

一、单选题 (20 marks, 2 marks each)

根据你学号最后一位，请下载对应的选择题试卷。例如：学号最后一位是 7，请下载 test7.txt

提交文件名称：学号.txt

文件内容格式：十个答案写在第一行，例如：ABCDABCDAB

(程序自动改卷，请严格按格式提交)

二、分析设计题 (80 marks, 10 marks each)

评分卡 (扣分):

用例图	活动图	状态图	领域模型	系统顺序图	包图	顺序图	设计类图	部署图

请将图片，或文字插入试卷的题目后面，用中文作答。

提交文件名称：学号-姓名.doc

Read the providing materials carefully, and then do tasks.

2.1: Use Case Diagram

Develop a detailed use case model for the application “X 单词”. The model should take a **user's (rather than system's) perspective**. Define use cases for handling user's input and actions, but do not be specific about system's computations or web page creation activities.

Show dependencies between use cases. **Specify «include» and «extend» relationships** and any important constraints.

2.2: UML Activity Diagram.

Develop a UML activity model for the use case “背单词” of the application. The model visualizes the interactions between a user and the application to fill a user's goals. Pay attention on user actions, **do not** apply swim lane activity diagram.

2.3: UML State Diagram.

Develop a UML state model for the control process of the use case “背单词”. The model visualizes the relationship between external events and business scenes.

2.4: Domain Model.

Develop a domain model of the application（注意：仅需要从设置学习内容，背单词用例中获取领域对象）。The model should take **business perspectives**. The conceptual model should show attributes in classes and relationships between classes. All associations should have multiplicities carefully defined. There is no need to specify attribute types and operations (methods).

2.5 System Sequence Diagram & Post-condition

According to the main scenario of the use case “背单词”, Develop a SSD model to identify some system operations for the system. And then give the post-condition of the operation “startLearning()”(即开始学习操作)

2.6 Package Diagram

For OO architecture design, we always use MVC pattern to build layer architecture. Develop a package diagram illustrates these layers. Please show the dependencies between packages, and then put software classes of the main scenario of the use case “背单词” into these packages.

2.7 UML Sequence Diagram

According to BCE pattern, develop a interaction model with sequence diagram for the main scenario of the use case “背单词”.

2.8 UML Design Class Diagram (DCD)

Develop a DCD including **C&E elements only** according to results of 2.7 and 2.4

附加题（10 marks）

2.9 UML Deployment Diagram

The architect(架构师) studied the use case “打卡”, he want a DB server to hold user profiles（用户注册信息）and achievements（成就）, a Web server to provide some services for clients, Mobile phones with android operation system as client hold MVC component and Proxy services component. A client communicates with the web server using HTTP and JSON protocol.

Develop a deployment model to illustrate the architect's design. Stereotype must be used to classify physical nodes.