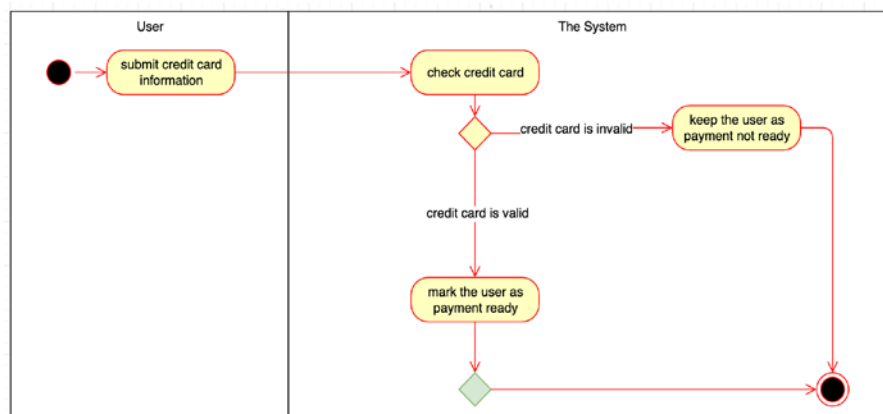


## 2020-Spring System Analysis and Design Quiz Questions

### Part I (10 points) Unique Choice (5 questions, 2 points each)

- 1, What is true about RFP(request for proposal)? ( )
  - A. RFP is a document provided by system analyzers to users.
  - B. RFP provides analysis on requirements founded and suggested solutions.
  - C. RFP informs suppliers that an organization is looking to procure and encourages them to make their best effort.
  - D. RFP is usually issued out after problem analysis phase.
- 2, Which one describes the relationship between "whole" and "parts" classes? ( )
  - A. Generalization
  - B. Association
  - C. Composition
  - D. None is correct
- 3, The degree of interdependence of classes within a module is known as ( ) .
  - A. Adhesion
  - B. Binding
  - C. Coupling
  - D. Cohesion
  - E. Instantiation
- 4, The below activity diagram tells us ( ) .
  - A. If the user verified the credit card, he/she can pay for orders.
  - B. If the user verified the credit card failed, the user can pay for orders.
  - C. If the system verified the credit card, the user can pay for orders.
  - D. If the system verified the credit card failed, the user can pay for orders.



- 5, Which of the following items result in eliminating one or more of the phases of the

Systems Development Life Cycle? ( )

- A. Using CASE tools
- B. Using Prototyping tools
- C. Purchasing a software application package
- D. Using object oriented technology
- E. all of the above (A to D).

## Part II System Analysis and Design (90 points)

### 校园订餐服务系统的分析与设计

(The requirement analysis and logical design of ordering service system)

#### 需求概述:

本服务系统的运营者为校园网运营单位（如学校的网路中心）或学校负责餐食及为校园师生日常生活提供服务的管理部门（如后勤部），旨在通过校园网为校园师生提供更好的生活服务，服务形式为将校园餐厅、食堂以及入驻校园的各类实体经营服务者（超市、水吧等等）以及校园周边 1 公里范围经认证的餐饮经营者纳入服务系统，向校园师生，特别是学生提供各类网上餐饮服务，如线上预订，支付， 预订餐位等等。

该系统的运营的目标在于提供学生更便捷更好的生活保障服务，而非以盈利为目的。该系统与美团，饿了么等线上服务非排他关系，但存在竞争。

#### 第一部分，范围定义与问题分析

问题一， 识别并指出本系统的用户都包括哪些角色(Identify the users of the system)? 概述本系统提供各类用户的用户价值是什么（Describe the user values/benefits analysis for different type of users）？

问题二， 该系统的主要业务风险是什么？解决办法是什么？

（Problem analysis: Please identify the risks and find the root cause problems and their solutions）

#### 第二部分，需求分析与需求定义

问题三， 请提供订餐者（校园学生）的用户故事/用户功能？（Please provide the user stories of a user such as a student?）

问题四， 提供学生下订单包括投诉的用例图及用例描述？（Provide use case and use narrative of placing an order and issuing a complaint?）

问题五， 学生进行服务投诉的功能规格说明？（Requirement specification of sending out complaints and receiving feedbacks）

问题六， 简述你认为本系统最主要的非功能性需求？（Describe the key non-functional requirements of the system?）

#### 第三部分， 建模与设计

问题七， 请用 UML 类图或 ERD 图描述本系统的主要业务实体以及其关联关系？（Please use UML class diagram or ERD to model the domain entities and their relations ?）

问题八，请用时序图或交互图描述系统处理用户投诉的过程，注：用户投诉即可来源于订餐客户也可以来源于商家？（Modeling the system process of handling complaints with sequence diagram or communication diagram?）

问题九，投诉处理的状态图? ( Modeling state transition of a complaint with state diagram?)

#### 第四部分，方案建议 Proposal

问题十，请就系统的实现，简单给出技术方案建议，如编程语言，应用框架，开发工具等等？  
（Please provide the technical solution for the system development, e.g., programming language, frameworks, IDE, middleware and DB infrastructure）

问题十一，请给出系统的服务器端的软件部署结构图？(provide the system deployment diagram of web server end.)