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Addis Ababa University
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Midterm Exam-1
Sep 16, 2016
Fundamentals of Software Engineering

MIDTERM.README

1. All of the questions in this exam paper ask you do some part of a requirements analysis for **SweetDeals**. Sweetdeals is a system that provides the user with items that are sold for a low price in Addis Ababa. The requirements and background about the proposed system is found on the next page.
2. Make sure that this exam paper contains two pages.
3. This is a **closed book** exam. You may not use any reference materials during the exam; if you have any notes on you please put them away.
4. You have **1½ hours** to complete as much of the exam as possible. Answer all questions on the separate answer sheet provided to you during the exam. The weight of each question is indicated at the beginning of each question in parentheses.
5. Make your answers as concise as possible.
6. You will receive partial credit for partially correct answers.
7. Write your **name on this cover sheet AND at the top of each page** of this booklet, since some pages might get *detached*.

DONOT OPEN THIS PAGE UNTIL YOU ARE TOLD TO DO SO!

Background

Assume that you are hired as a developer for a tech startup company called **SweetDeals**. SweetDeals provides the user with the list of items that are sold for a low price in Addis Ababa. Sellers can post items that they want to trade along with pictures of the item after registering in the system. If a buyer found out that an item is bogus (fake) after they purchased it, they can mark the item as bogus. If the report is found to be true, SweetDeals will delete the sellers account from the system.

The system allows the buyer to browse the items found in different categories such as Fashion and Electronics. The system will also allow the user to search for an item by entering its name. After selecting an item, the user can browse through the different images of the item. The user can also click on the buy button specifying their personal details such as name and shipping address and number of items (s)he wants to buy. The system will be updated to reflect the changes. The buyer will pay for the item in person when a SweetDeals delivery person delivers the product at the buyers preferred address.

1. [2 pts] Assume that your team chose to use waterfall as a lifecycle model. Mention to advantages and disadvantages of using a waterfall model for this project.
2. [6 pts] Identify at least three functional requirements and one non-functional requirement for sweat deals. Note: You will lose marks if those functional requirements are bad requirements.
3. [12 pts] Draw a use case diagram for your system. For each of the elements (actors, use cases) write a one sentence description to let me understand your use case diagrams.
4. [10 pts] Write a formal use case description for one of the use cases in your system. Your use case description must include Goal, Primary Actor, Level, Precondition, Success end condition, failure end condition, trigger, main success scenario, extensions, and alternatives. You may select any one of the use cases that you identified in Question#3. But your use case must satisfy the following criteria:
 - a. Must have at least four steps in their main flow.
 - b. Must have at least one alternative flow.
 - c. Must have at least one extension.