Faculty of Computers & Artificial Intelligence
2ˢᵗ Term (2019-2020) Final Exam
class: year 3ʳᵈ
Course Code: INF 381
Course name: Systems Analysis and Design

Benha University
Final Date: 7 / 6 /2020
Total Marks: Pass / Fail
 Examiner(s): Dr. Khaled M. Fouad
  Dr. Alaa eldin Abdallah

Research submission: From 31 May to 7 June 2020

a) **Write a research project in ONE of the following topics:**

Topic No. 1

Automated Attendance System
An automated attendance system that consists of a web system for an entire organization to record attendance. Each Classroom or department has its login. On login, the class faculty can see a list of students or members registered under it. The faculty may take attendance and mark the present students using the checkbox provided in front of every student's name. This attendance sheet is stored and sent to the central administrator of the organization and stored there. The system has an admin login. The admin may check all attendance data, press a button to see defaulter list, search for particular student attendance by name, search class attendance, and generate excel reports.

Topic No. 2

Airport Network Flight Scheduler
It has happened so many times that you have been waiting at the airport for someone to arrive and you don't have any exact information about flight timing and other stuff. So here we present to you a project on the flight scheduler system. Using this system, users can get information about flight timing, and it is on time or not, and other information. In this system, there is an admin module that enters the detail about flights and its timing, and these details pass through an internet server and are fetched by the system on other airports, and there is another system that shows flight information to the viewers on the airport. The second system will get all the information on all flights but will automatically select the data that refers to a particular airport and shows that information on a screen. For example, if an admin at Mumbai airport enters information about the Delhi flight Chennai airport system will not be affected. Still, the Delhi airport system will show the information about the flight. This

system works like – when the flight is departed late from an airport, an admin will enter details about departure and its time, and this information goes in real-time on the internet server and retrieved on another system through internet server and shows the details on screen. This second system is installed on various locations on the airport for viewers to view the information. Admin will add information like add flight left from the airport, expected arrival at the destination, delay in the flight schedule, etc. This project publishes real-time flight schedule events to subscribing to multiple client applications.

Topic No. 3

Agile or waterfall method?

Assume you are a program leader in an IT company, and you should decide which one is right for you? Agile or waterfall method to apply in the new project. Type how you will make the decision, and explain your decision on a case study.

Topic No. 4

Apply the Agile approach to the Facebook application.

Assume you are the owner of an IT company, and your company will develop a web/mobile app. Here, our case study is the Facebook application; explain how your company will apply the Agile approach on this project step by step and also discuss eighty twenty rules in this application.

Topic No. 5

Apply the Agile approach to the WhatsApp application.

Assume you are the owner of IT company, and your company will develop a mobile application, here our case study is WhatsApp application, explain how your company will apply Agile approach on this project step by step, and also discuss eighty twenty rule in this application

Topic No. 6

Apply the Agile approach to the language school web site.

Assume your company will develop a web site for language school, and the requirements changed according to coronavirus -market change-, discuss how your company can apply the Agile approach to this project.

Topic No. 7

Apply the Agile approach on dates company web site.

Assume your company will develop a web site for dates company, and the requirements changed according to the coronavirus (market change), discuss how your company can apply the Agile approach to this project.

Topic No. 8

Apply the Agile approach on (any business) web site.

Assume your company will develop a web site for (any business) company, and the requirements changed according to corona virus (market change), discuss how your company can apply Agile approach on this project.

Note: Students here will assume the case study.

b) <u>Notes: please, your research must contain the following elements:</u>

1. Project Basic Data
2. Project Overview
   2.1 Project description
   2.2 Project Scope
   2.3 Assumptions
   2.4 Constraints
3. Project planning
   3.1 Project life cycle
   3.2 Methods, Tools, and techniques.
   3.3 Schedule allocation
   3.4 Resource allocation
   3.5 Budget allocation
   3.6 Risk management
4. System analysis
   4.1 Determining system requirement
   4.2 Structuring system requirement
   ☐ Process Modeling (Data flow diagram and decision table)
   ☐ Data Modeling

5. Conclusion
6. References

GOOD LUCK,

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