1/8/2024

MET CS 682 ASSSIGNMENT 1

replace this with your name

The purpose of this exercise is for you to think through information system types and gain an understanding of the beginnings of the system analysis process.

1. USE THIS TEMPLATE: Please respond by using this Word template, leaving the headings and the gray text unchanged—but exclude the *hints* section (at the end) from your solution.
2. OBSERVE LIMITS: Observe the page and paragraph limitations; however, you may include as many appendices—additional to the required Appendix 1—as you wish. All appendices should be referred to in the main text.
3. USE chatGPT: **But ONLY on question 1.1.** We would like you to answer this question using chatGPT because we feel that this is the way such writing will be created going forward. We want you to practice good use of AI generation, including your verification, re-prompting, editing, and improvement.
4. You are required to document your chatGPT interaction as in Appendix 1 question 1.1. You are also encouraged to do outside research to support your response but use the *References* section as indicated and observe plagiarism rules carefully, including the citation of sources, the use of quotes, and acknowledgement of modifications of external sources.
5. NAME YOUR FILE: Include your last name in the file name of the assignment. (Example: SmithMichael\_CS682Assignment1.docx)

You will be evaluated on your value added to existing and AI-generated material. Hints are provided at the end of this document. We will provide feedback comments and will use our best judgement in terms of the evaluation criteria listed.

**The Scenario for this assignment is as follows:** Our company, *HealthyEats* specializes in providing healthy nutrition and food delivery for corporations, specifically targeting small businesses and startups.

Select two of the system types below which HealthyEatsmight use for the benefit of employees (i.e., not as a customer-facing product). (1) MIS, (2) DSS, (3) Office Automation, (4) Customer Relationship Management (CRM) or (5) Expert Systems. (Again, there are hints at the end of this document.) You are free to interpret the given scenario in any manner consistent with the sentence provided above.

# Your first system type selected (of the five above) replaces this

## 1.1 Purpose of the selected system (one paragraph)

your response replaces this

## 1.2 Typical user(s) of the system and their means of interaction with it (up to two paragraphs)

## your response replaces this

## 1.3 Type of Input Data Used by the System

* your response replaces this
* …

## 1.4 Type of Output Data Used by the System

* your response replaces this
* …

# Your second system type selected (of the five above) replaces this

## 2.1 Purpose of the selected system (one paragraph about 4-6 sentences)

your response replaces this

## 2.2 Typical user(s) of the system and their means of interaction with it (up to two paragraphs)

## your response replaces this

## 2.3 Type of Input Data Used by the System

* your response replaces this
* …

## 2.4 Type of Output Data Used by the System

* your response replaces this
* …

# An Example Outline of Systems Analysis

Apply the major parts of system analysis with the “basic” systems analysis methodology given in Module 1 (“Introduction to Systems Analysis Methodology” section), applied to the following task.

The Scenario: Our company, *HealthyEats* specializes in providing healthy nutrition and food delivery for corporations, specifically targeting small businesses and startups. In sections 1 and 2, we reviewed types of systems to be used internally by the employees. This section should focus on a primarily *customer-facing* product.

## 3.1 Mission Statement (one paragraph)

your response replaces this

## 3.2 Functional System Requirements (about 8-12)

your response replaces this

## 3.3 A System-Level Use Case (Please use the table provided; there should be about 7-10 steps)

|  |  |  |
| --- | --- | --- |
| **Actor:** |  | |
| **Context:** |  | |
| **Step #** | **Actor** | **System** |
| **1** | …  … | …  … |
| **2** |  |  |
| **3** |  |  |
| **4** |  |  |
| **5** |  |  |
| **6** |  |  |
| **7** |  |  |
| **8** |  |  |
| **Alternate Courses:** | Note- keep these to no more than 2 alternate courses. | |

## 3.4 Supporting System-Level Activity Diagram for the above use case (insert diagram and any explanations below.)

your response replaces this

## 3.5 System-Level Non-functional Requirements (about 3-6)

your response replaces this

Reminder: Appendix 1 is required.

# Appendix 1 (Required): Interaction with chatGPT

For each of the following, show your most relevant prompt to chatGPT and the response which was most relevant to your solution.

## A1.1 (Your first selected system)

## A2.1 (Your second selected system)

## A3.1 (re Mission Statement)

## A3.2 (re Functional System Requirements)

## A3.3 (re A System-Level Use Case)

## A4 (re ChatGPT overall)

In no more than one or two paragraphs describe what was and what was not helpful specifically in using ChatGPT to your solution.

# References other than chatGPT

Show that you used a wide variety of resources by listing them below and clearly indicating in the body above where you used. Make sure to use proper referencing in your paper. We suggest using APA format, but other formats are fine as long as they clearly distinguish your work from work of others in your response. In general, observe the stated plagiarism rules.

[1] your first reference replaces this

[2] …

# Evaluation



**Please do not include this Hints section in your solution.**

# Hints

## Hints for *Systems Types* (Part 1 & 2)

* For reference to business systems, see Appendix A in module 1 (“Types of Information Systems” section) and conduct your own research.
* One way to approach some of these parts is to research a midsize or large business that you know and identify the type of information system it uses. This may require some research.

**Clarity**:

* Does the purpose clearly link to both system and scenario?
* Make sure to differentiate the systems clearly. For example, we want to see that you understand the key differences between executive information systems and decision support systems; avoid overlap.

**Technical Soundness**

* Show distinction between various types of systems

**Thoroughness and Coverage**

* Do inputs consider external systems?
* Does your solution consider various different users and how they interact with the system?

**Relevance**

* Is the system selected relevant to the scenario?
* Are inputs and outputs relevant to the scenario?

## Hints for the Basic Methodology (Part 3)

* You may want to start by reviewing examples given in Module I. See QuickMessage (in the “Example of System Analysis Methodology” section) and ElecPak and E-LearnLive examples (in Appendix C, D).
* The mission statement must give a high-level context and scope for the system. A good place to start is to research mission statements of systems that you use.

**Clarity**:

* Each requirement should be written in one or two focused sentences.
* Use consistent terminology (e.g., you should avoid using the term "students” in one place and “test takers” or "users" in another to describe the same person).
* Take the time to review your response iteratively, going back to previous sections. For example, once you complete the system requirements, use cases, and constraints, make sure that they are consistent and that the Mission Statement provides a top-level overview.
* Distinguish functional vs. non-functional requirements
* Label the elements in diagrams

**Technical Soundness**

* Be sure that you understand the difference between functional and non-functional requirements.
* The functional requirements should describe only *what* the system does—not *how* (which is design).
* Non-functional requirements focus on supporting how the functional requirements are to be achieved, for example: using a specific platform (i.e. OS), programming language, GUI layout, or encryption method should be documented as *constraints* and/or other non-functional requirements and not as functional requirements.
* System-level use cases are a scenario-like sequence of user actions and system responses building on information contained in the functional requirements

**Thoroughness and Coverage**

* Think about the key functionality and who the main users are. The mission statement should be about a paragraph in length.
* Check that your activity diagrams cover the elements in your use case. Activity diagrams can show branching whereas use cases are very limited in that regard.
* Support your choices with research within the appendix. A good way to work references into your response is to show example systems within an appendices section.

**Relevance**

* Consider the most relevant and important requirements to implement this system (avoid being generic, secondary)
* For non-functional requirements, consider how they support the use case, and functional requirements.