IE-462
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Section 2, CRN: 38318/19/20
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First Semester 1446 (Fall-2024) – 2(2,1,1)
"INDUSTRIAL INFORMATION SYSTEMS"

Monday, September 16, 2024 (13/03/1446)
Course Project [20 Points]

[*CLO1:* 25%, *CLO2:* 25%, *CLO3:* 50%]

Assessment and Redesign of Industrial Information System in Saudi Workplace

You are required to contact and review a Saudi workplace or system of your choosing, then analyze, model, and redesign their industrial information system. The following rules apply:

a) You are required to work in a team consisting of **4-5** students. No exceptions!

b) The workplace must include either the **inventory** or **production** department for a large company; and can include any private or public sector company or institution.

c) **Academic honesty** rules seriously apply! You are not permitted to use a project from a previous semester or obtained from any other external source. KSU and COE Plagiarism rules will be very strictly enforced. Any assistance received during the project must be explicitly justified.

d) You *must* **attach detailed photos** to support your work, showing all parts of the designed IIS, sample employees at work, and the design team, etc.; no project will be accepted without this. You must also properly **cite** all your utilized references (e.g. company work regulations and policies).

e) You can earn more credit depending on the **quality** of your work (especially the **design and redesign** of the IIS).

f) The **report** must include the following sections:

- **Background** regarding your selected workplace
- **Justification** for why you chose this particular workplace/system
- The company's **business model**: schematic describing functions, data requirements, and interaction between those two components (refer to examples of business models discussed throughout the course).
- Detailed steps of what was done during the project, including work

breakdown structure (**WBS**) and **Gantt chart**, etc.

- **IIS models**, including detailed forms and explanation, *before* and *after* the redesign phase:
  - Process modeling:
    - (a) detailed **IDEF0** model (top level down to elemental levels), including **breakdown structure**
    - (b) detailed **DFD** model (context diagram down to primitive DFDs), including **process hierarchy chart**
  - Data modeling: **E-R diagram** (with attributes)
- MS Access **database file** to simulate how your IIS works, including:
  - Sample database tables
  - Sample forms, queries, and reports
- Proposed **improvements** (shown for *each model*), and what results are expected due to these improvements
- Brief **summary** of the project
- **References**
- Appendix 1: **Who did what**
- Appendix 2: **Photo section** (see point *d* above)
- Note, all presented work must be **neatly typed** (no handwritten work will be accepted). Note, besides content and quality, you will also be graded on your spelling, grammar, formatting, neatness, etc.

g) Your group will be required –collectively– to perform a **6 to 7-minute** presentation (you will not be allowed to exceed the time limit).

- You will present a summary of your project, and you MUST include slides (at the end) that state ALL **references**, **"who did what,"** as well as sample **photos** (see point *d* above).

- You must also *briefly* show **all sections elaborated in your report**, including sample tables, forms, queries, and reports from your database.

- Note, besides the quality of the content of your work, you will receive a grade for your team coordination, overall presentation and speech skills, as well as your PowerPoint slides. **All group members** must participate in this activity.

h) You must **submit** the following **by 2 PM on the day of your scheduled presentation** (no late work will be accepted):

- **Report** showing all steps and details of the complete work accomplished in this project (*.docx* format)

- **Presentation** (*.pptx* format)

- All **references** you have used including photos, screenshots, forms, reports, and any other material that adds value and authenticity to your work. Remember, you will be monitored for plagiarism.

- **MS Access** database file (with sample tables, forms, queries, and reports)

- All **modeling**-related **files** (e.g. MS Visio) and figures.

- Place all work in **one folder** then **submit your work by email**, in one zipped file (e.g. "Project_G04.zip") to <u>aelsherbeeny@ksu.edu.sa</u>. Let me know if your work exceeds 10 MB as the KSU server does not allow attachments exceeding 10 MB.

- Make sure to include your **group number** on all submitted work (cover page of report / first slide of presentation, etc.).

i) The scheduled presentation date is: <mark>**Saturday, Nov. 23rd, 2024 (21/05/1446H)**</mark>.

- The presentations will be held via Zoom, at the following address (**https://zoom.us/j/2557992359** – password: 0). Groups should be prepared to start and be waiting in the waiting room **5 minutes** prior to the designated starting time. As soon as the prior group has completed your group will be allowed to enter.

- A total of 15 minutes is allotted to each group, distributed as follows:

  - 6 to 7-minute presentation (as mentioned above)

  - 4 to 5-minute Q/A session

  - 2 to 3-minute transition to the new group

I wish you the very best with this project, and hope you can both learn and enjoy working on it.

List of Previous Projects

Note, you are allowed to choose any Saudi workplace so long as your selected information system has not been chosen in a previous project.

#	Workplace	System
1	Absolute Solutions	Inventory
2	Abyat	Delivery
3	Adab Publishing	Ordering
4	Advanced Board Co	Inventory
5	Al Hoshani Polystyrene Factory	Inventory
6	Alayady Alalmiah (spare parts)	Inventory
7	Alayed Hoses	Production
8	Al-Babtain	Inventory
9	Al-Babtain	Production
10	Albilad Concrete Pipes	Production
11	Alfakhera Company	Production
12	Alfanar Cable factory	Production
13	AlHabib Hospital	Appointment
14	Aljaz Factory	Ordering
15	Aljazeera Cables	Production
16	Aljazierah Home Appliances	Assembly
17	Al-Jomaih Bottling	Inventory
18	Alkaabs	Inventory
19	Al-Khorayef	Inventory
20	Al-Khorayef	Production

21	Alrahden Soap Factory	Production
22	Al-Rajhi Steel	Production
23	Al-Rashid Boxes and Plastics Factory	Production
24	Alshablan Medical Center	Appointment
25	Al-Shamloul Trading Est (Nuts)	Inventory
26	Aluminium Granada	Inventory
27	Arabian Plastic Mfg. Co. (APLACO)	Inventory
28	Arabian Plastic Mfg. Co. (APLACO)	Production
29	Arak (Plastic Company)	Production
30	Astra Mining Co.	Production
31	Attieh Group (Steel)	Production
32	Auntie Anne's Pretzels	Ordering
33	Bamasaq (spare parts)	Ordering
34	Beez (Logistics Company)	Inventory
35	Boodi's Burger	Ordering
36	Capri-Sun Factory	Production
37	Century Gate Factory	Inventory
38	Ceramic Home	Sales
39	Ceramic World	Ordering
40	Cozy Cafe	Ordering
41	Dodge	Maintenance
42	Elixir Bunn	Ordering

43	EQEW (film and video equipment)	Ordering
44	Estechtab Factory - Plastics and Molds	Production
45	EX9 (coffee shop)	Billing
46	Faces of Care	Inventory
47	Gansu	Payroll
48	Golden Block	Inventory
49	Golden Sheet Factory	Production
50	Haif Dates Factory	Inventory
51	Hamburgini	Ordering
52	Hikma Pharmaceutical	Inventory
53	Jeraisy Furniture Factory	Inventory
54	Jeraisy Furniture Factory	Production
55	Kawader Training	Payroll
56	King Fahad Public Library	Borrowing
57	King Saud University	Deanship Admission / Registration
58	King Saud University Library	Borrowing
59	King Saudi University Medical City	Purchasing
60	King Saudi University Medical City	Recruitment
61	KSU Campus	COVID-19 Vaccination System
62	KSU Central Lab	Sample Analysis
63	KSU Press	Production
64	Laan Care	Ordering

65	Maison Global	Inventory
66	Milling Company 2 (MC2)	Production
67	Milling Company 2 (MC2)	Inventory
68	Mustach Burger	Ordering and Cooking
69	Najla Food Packaging Factory	Inventory
70	NAQEL	Shipping
71	Nota Nota	Ordering
72	Obeikan Co. for Plastics	Production
73	Obeikan Co. for Plastics	Inventory
74	Obeikan Folding Carton (OFC)	Production
75	Obeikan Graphics Center	Production
76	Papa John's Dough Factory	Production
77	PPC (Product Packaging Co.)	Production
78	Prima International Factory	Inventory
79	Prima International Factory	Production
80	Real Burger	Ordering
81	Riyadh Airport Station	COVID-19 Test Appointment System
82	Riyadh Carton Factory	Inventory
83	Riyadh Foundry	Inventory
84	SACO	Inventory
85	Sahar Vital	Production
86	Saline Water Conversion Corp. (SWCC)	Inventory

87	Sary Company	Inventory
88	Sary Company	Delivery
89	SayaraTech	Appointment
90	SMASCO	Customer-ordering
91	Tamimi Markets	Ordering
92	Tanatel Furniture Factory	Inventory
93	Tathmeen	Valuation
94	Tazej Food Co.	Production
95	Texas Chicken	Customer-ordering
96	Thermal Pipes Factory	Production
97	Top 100	Distribution
98	United Cartons Industries Co.	Inventory
99	United Co - Caravans & Prefab Houses	Inventory
100	United Wire Factories Co. (ASLAK)	Production
101	Urth Caffé	Ordering
102	Varietal café	Ordering
103	Which Wich	Ordering
104	Yamama Cement	Inventory
105	Zoujaj Glass	Production

Wall of Fame

Fall 2023: