جامعة الأمير سطام بن عبدالعزيز
PRINCE SATTAM BIN ABDULAZIZ UNIVERSITY

Prince Sattam bin Abdulaziz University

College of Computer Engineering and Sciences

Information Systems department

IS3611: Systems Analysis & Design

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SAN3A

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Supervisor:

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Our Team

Shrouq Mohammed
Project Champion

Responsible on The System Idea and The process Planning, following up on its progress to the fullest, and reviewing progress

Sama Al-Othman
Project Sponsor

Responsible on The System Requirements and all details of the Digrams (DFD, Use Case ... etc)

Taif Ba Omeira
Project Manager

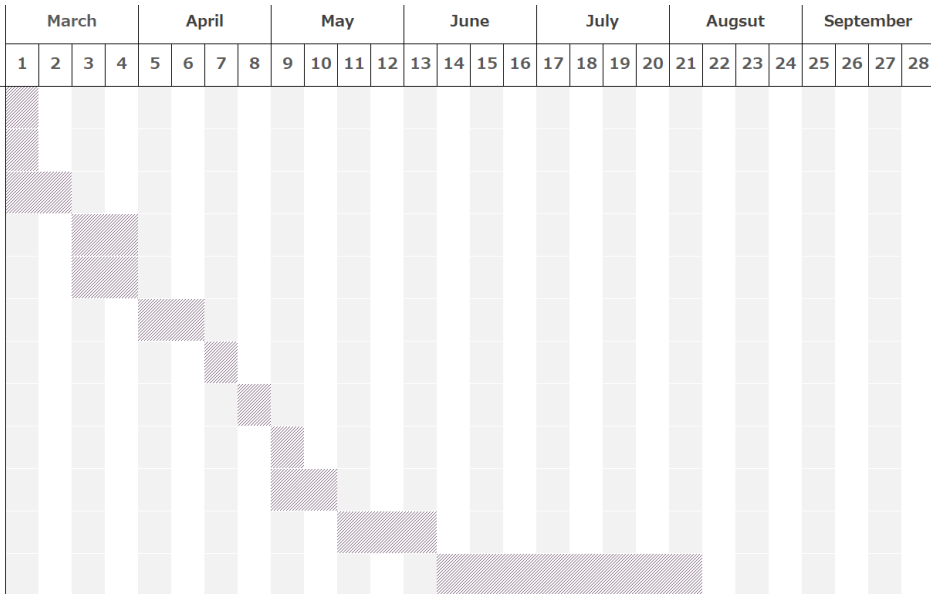
Responsible on all details of project (Methodologies, Feasibility ... etc) and helping in planning process

About us

San3a is an application for smartphones that aims to connect craftsmen (construction workers, contractors, blacksmiths...etc) with companies to facilitate the provision of job opportunities for them by offering their services and receiving requests from companies. On the other hand, San3a provides an easy way for companies wishing to find a group of craftsmen to work in their projects by presenting them or receiving craftsmen's requests.

Gantt Chart

process		Start	Duration
Planing	Gant CGart	1	1
	Feasibility Study	1	1
	Project Charter	1	2
Analysis	Requirement Gathering	3	2
	Functional / non-functional	3	2
	Data flow Diagram	5	2
	Use Case Diagram	7	1
	Activity Diagram	8	1
	Sequence Diagram	9	1
	E-R Diagram	9	2
Design	Designing user interfaces	11	3
Implementaion	Application version	14	8



Project Charter

General project Information		
Project Name		
Sanaa		
Project Champion	Project Sponsor	Project Manager
Shrouq Mohammed	Sama Mohammed	Taif Ba Omeira
Stakeholders	Expected Start Date	Expected End Date
Investments & Managers Marketing, Sales, Customer Support	2023/03/01	2023/08/07

Project Details

Deliverables	Scope	Constrints
Increase in income, acquire teamwork skills	Unemployed Saudi contractors & Technical college graduates & Contracting company	only residents of Saudi Arabia Contracting company with seasonal projects
Describe	application to connect craftsmen (construction workers, contractors, blacksmiths...etc) with companies to facilitate the provision of job opportunities for them by offering their services and receiving requests from companies. On the other hand, San3a provides an easy way for companies wishing to find a group of craftsmen to work in their projects by presenting them or receiving craftsmen's requests.	
Vision	Our vision is for the company to be entirely Saudi, contributing to the development and development of society. As it provides Saudi youth with job and training opportunities, reduces unemployment rates, and becomes the first choice for contracting companies to form successful internal partnerships.	
Risks	We're risking the potential loss of money and time as well as the potential lack of adoption.	

Agile Methods

There are several reasons why Kanban is a good fit for our project:

1. Visualizing work:
provide a visual representation of the work items, current status, and the progress of the project.
So, It's help us to understand what needs to be done next and current state.

2. Optimizing flow:
encourages teams to continuously improve by analyzing their workflow and finding ways to make it more efficient.
This is important to us because it is important for companies to gain their trust, as well as for contractors

3. Flexibility:
Highly flexible and can easily adapt to changes in project requirements.
We think that our requirement change frequently according to government, corporate and other regulations

Feasibility Study

Economic Feasibility

Tangible Benefits: (1-->5 year)

- Error reduction ---------- 4,000 SR
- Increased flexibility ---------- 3,000 SR
- Increased speed of activity --------- 8,000 SR
- improvement in management ----- 30,000 SR

Total = 45,000 SR

Intangible Benefits: (1-->5 year)

- improvement of employee morale ------ 5,000 SR
- Reduction of resource waste ---------- 9,000 SR

Total = 14,000 SR

One Time Cost:

- Software Development ----- 12,000 SR
- New Hardware ---------- 20,000 SR
- Training employee ---------- 3,000

Total = 35,000 SR

Recurring Cost: (1-->5 year)

- Application software maintenance --- 30,000 SR
- Incremental data storage expenses -- 15,000 SR
- Incremental communications ---------- 4,000 SR
- Supplies ---------- 2,000 SR

Total = 51,000 SR

The cost of the project is appropriate, due to our reliance on alternatives to reduce the cost, such as working from coffee shops instead of furnishing offices, and relying on recent graduates and trainees greatly at the beginning.

Operational Feasibility

Our project try to solve a big problem here at KSA, after we study the local market, we found two things:
Increasing the number of unemployed Saudi technical college graduates (our target group)
Many companies abandon permanent employment (especially companies that undertake seasonal tasks) to increase the cost of fees for them
Here, the application will be a solution that connects companies with workers who serve their projects with national hands.

Schedule Feasibility

The launch of the application will be with the basic and important services that we aim in the future to develop with good future plans to take advantage of all the resources available to us
The first year = working with the mentioned initial plan
The second year = the application's partnership with Nafath Al Watani services to verify the eligibility of employees and companies + building plans for packages that we provide to companies
After five years = strategic partnerships with major companies in the sector
We think that we can follow the plan, and we see that it will be easy to sustain the application

Technical Feasibility

		Low Structure	High Structure
High Familiarity with Technology or Application Area	Large Project	(1) Low risk (very susceptible to mismanagement)	(2) Low risk
	Small Project	(3) Very low risk (very susceptible to mismanagement)	(4) Very low risk
Low Familiarity with Technology or Application Area	Large Project	(5) Very high risk	(6) Medium risk
	Small Project	(7) High risk	(8) Medium-low risk

Gathering Requirements

We use -Interviewing individuals- to Requirement collection phase so we meet: Contracting company owners - Contractors - business pioneers - investors - Innovation and development consultant

Interview	Questions	First Answer	Second Answer
Contractors	Q1.Do you find it difficult to find a suitable work? Q2. Do you want a company at salary that suit your needs? Q3. Would you rather know what people think about the company and people experience before work with them? Q4. What do you think of a program that brings together all the contraction company in your Saudi Arabia in one place?	Q1. Yes, I want a opportunity that suits me, especially to be close to my location. Q2. I care about that, it's one of the reasons why I choose the company Q3. I definitely hope so Q4. This allows me to be able to compare the salaries and advantages of company with each other, and thus save a lot of time and effort by searching for offers that suit me in all respects.	Q1. Yes, already I didn't find a job Q2. Yes for sure, it help me to choose the suitable offer Q3. Yes, it's really important one Q4. I think It'll be great to find perfect offer
Company	Q1.Do you find it difficult to find a suitable worker? Q2. Do you want a contractor at salary that suit your needs? Q3. Would you rather know what people think about the company and people experience before to them? Q4. What do you think of a program that brings together all the contractor in your Saudi Arabia in one place?	Q1. Yes, I want a opportunity that suits me, especially to be close to my expectations. Q2. I care about that, it's one of the reasons why I choose the contractor Q3. I definitely like this Q4. This allows me to be able to compare the skills and advantages of contractors with each other, and thus save a lot of money by avoid annual contract with them.	Q1. Yes, already I didn't find a contractor Q2. Yes for sure, it help me to choose the suitable contractor Q3. Yes, it's really important one Q4. I think It'll be great to find perfect contractors

Non-Functional Requirement

Requirement	Description
Performance	The System should be conducted efficiently and within a reasonable time frame, without sacrificing the quality of the collected data.
Security	The System should be conducted in a secure environment to ensure the confidentiality of the information collected.
Usability	The System questions should be clear and easy to understand, allowing the interviewees to provide accurate and detailed responses.
Flexibility	The System be flexible enough to accommodate changes in the requirements or the addition of new stakeholders.
Reliability	The System should be reliable and consistent, ensuring that all stakeholders are given the opportunity to provide their input.
Interoperability	The System should be designed to work with different types of stakeholders, including business pioneers, investors, innovation and development consultants, and contracting workers.
Scalability	The System should be scalable to accommodate a large number of stakeholders, if necessary.
Maintainability	The System should be designed in a way that makes it easy to maintain and update over time.

Functional Requirements

1. Craftsman

1.1 Registration:

1.1.1 Craftsman should be able to Register

1.2 Login:

1.2.2 Craftsman should be able to log in

1.3 Edit profile:

1.3.3 Craftsman should be able to edit its profile

1.4 Search:

1.4.1Craftsman should be able to search for the companies offers

1.5 Craftsman should be able to propose an apply request to the company offer

1.6 Craftsman should be able to follow up its requests

1.7 Receipt of payment:

1.7.1 Craftsman should be able to displays its balance

2. Company

2.1 Registration:

2.1.1 Company should be able to register

2.2 Login:

2.2.1 Craftsman should be able to log in

2.3 Edit profile:

2.3.1 Company should be able to edit its profile

2.4 Make offers:

2.4.1 Company should be able to Add offers

2.5 Company should be able to displays Craftsmen request

2.6 Company should be able to accept the Craftsmen request

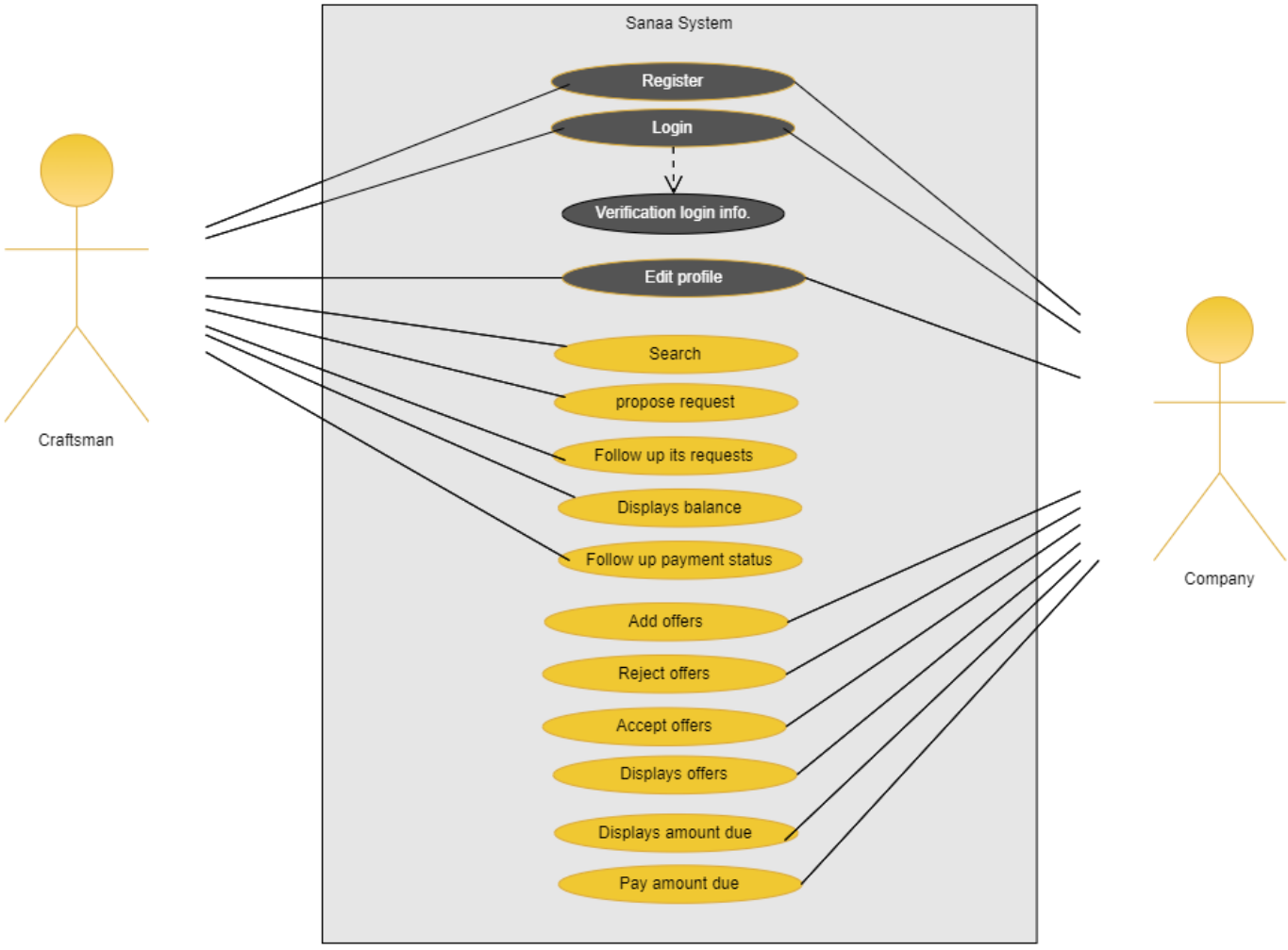
2.7 Company should be able to reject the Craftsmen request

2.8 Payment:

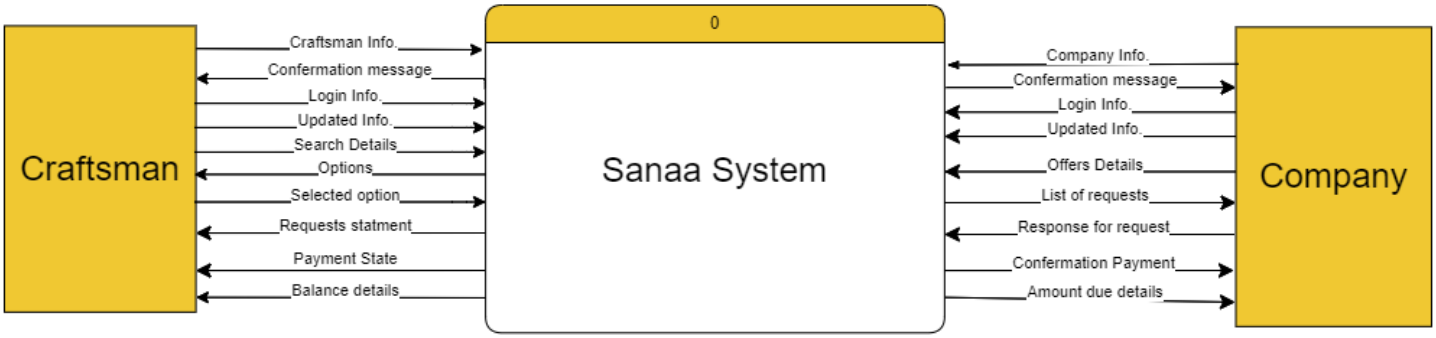
2.8.1 Company should be able to displays its amount due

2.8.2 Company should be able to pay its amount due

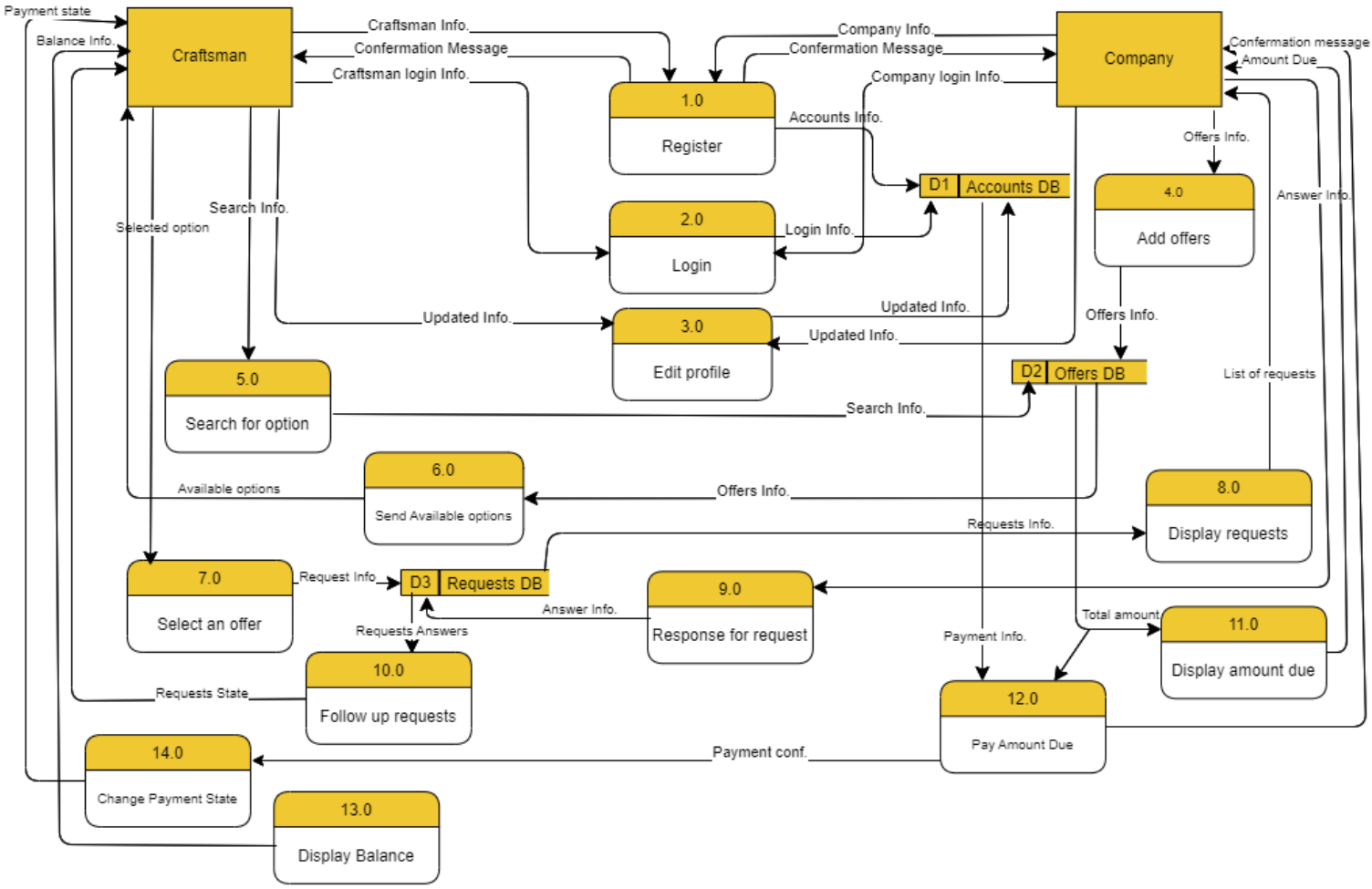
Use Case Diagram



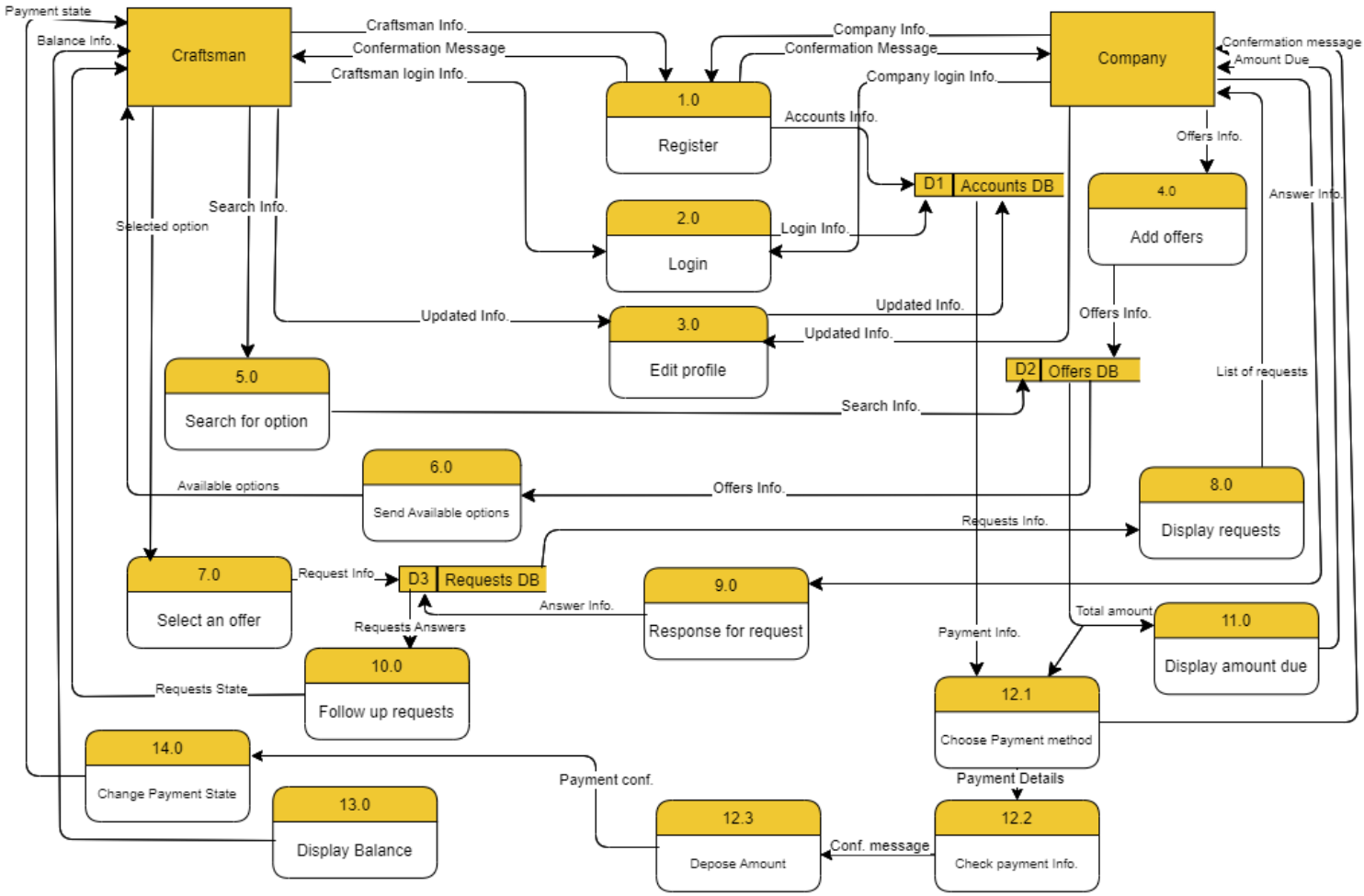
DFD Context Diagram



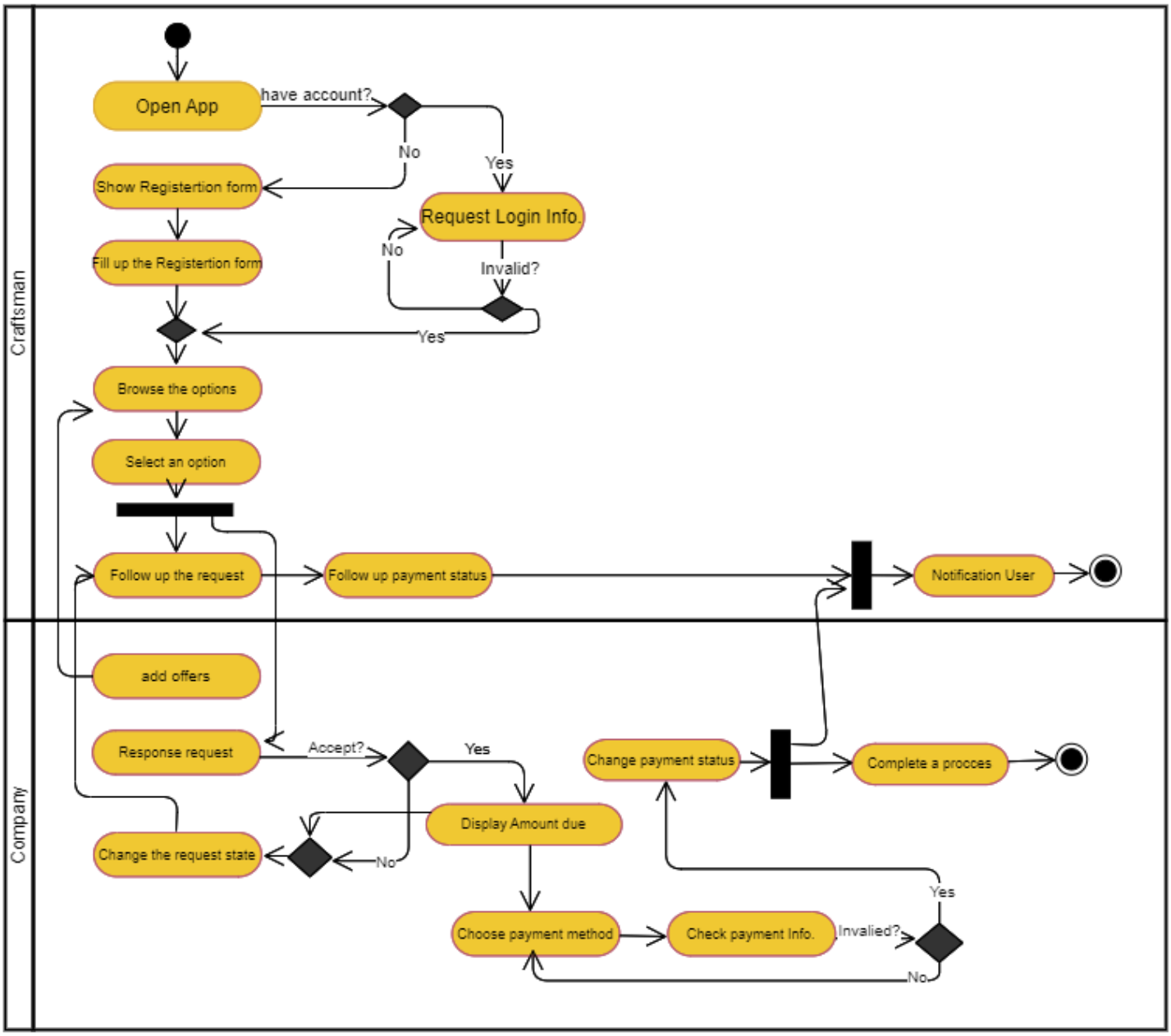
DFD Level-0 Diagram



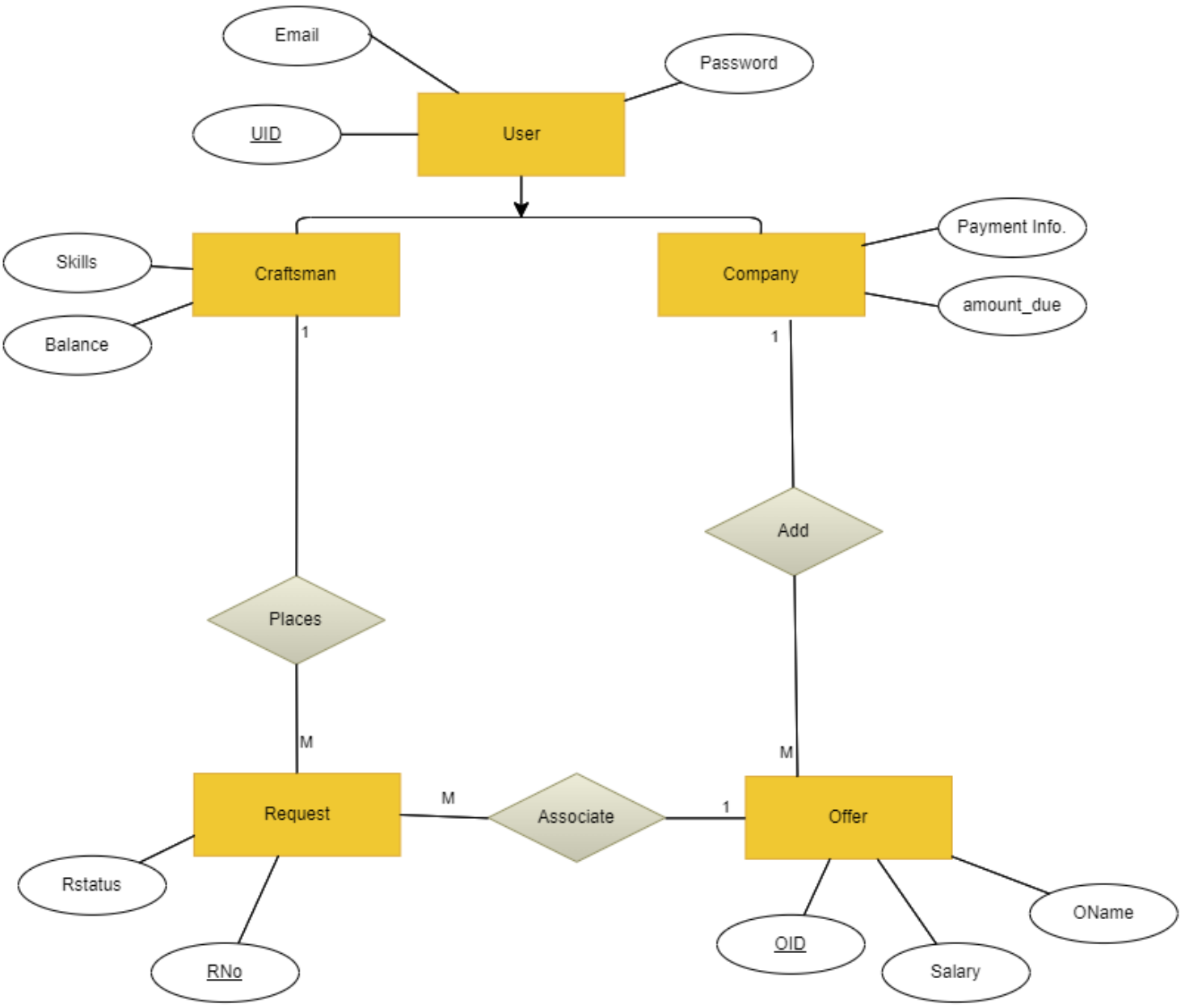
DFD Level-1 Diagram



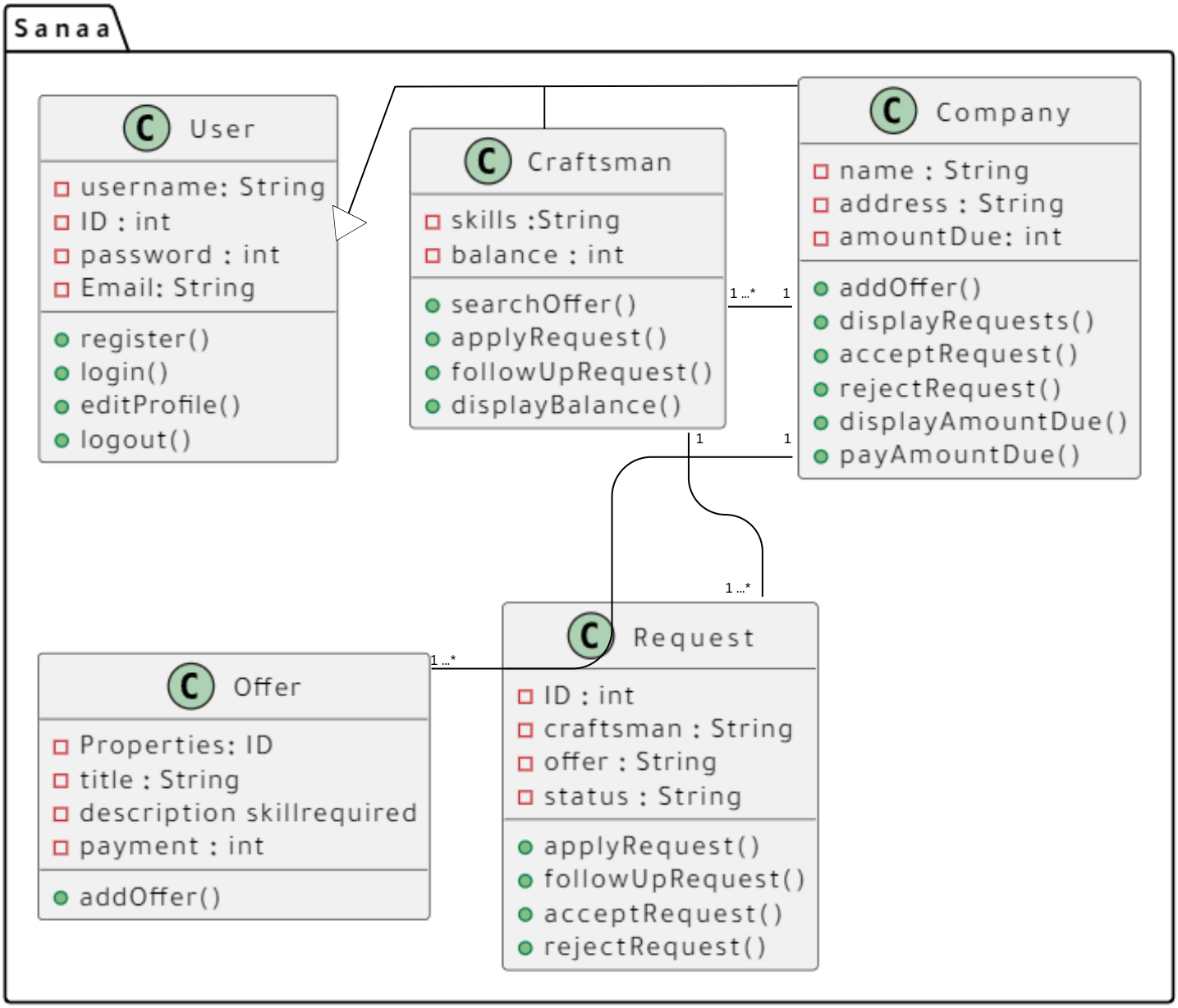
Activity Diagram



Entity Relationship Diagram



Class Diagram



User Interfaces designs

صنعة

Thank you!