

MENOFYIA UNIVERSITY
SYSTEM ANALYSIS & DESIGN PROJECT
SECOND YEAR
2021-2022



جامعة المنوفية
كلية الحاسبات والمعلومات
2021-2022

Hotel



Planning

Project Identification

Project Name:

Registration of hotel's guests

Current Problem:

The Hotel needs a system to insert, update and delete the information of its guests.

System Request

| System Request—Hotel | |
|---------------------------------------|--|
| Project Sponsor: | Mr. Mohamed Saad |
| Business Need: | <ol style="list-style-type: none">1. software to save all hotel guests, their room numbers and their accounts.2. apply rules. |
| Business Requirements: | <ol style="list-style-type: none">1. Provide on-line access.2. Capture guests' information.3. Produce management reports.4. Broadcast final report.5. Can work offline.6. Speed up customer service.7. Manage guests' profile.8. More usable.9. More secure. |
| Business Value: | <ol style="list-style-type: none">1. Reduce 10% of total cost.2. Reduce number of employees by 25%. |
| Special Issues or Constraints: | <ol style="list-style-type: none">1. Deadline 20/10/2022.2. Network.3. More security. |

Feasibility Analysis

Technical Feasibility

1. Cloud team is professional team
2. Business team is good and more personal
3. Security team need to update used technology
4. Backend needs to switch from django python to node.js.

Economic Feasibility

1. Cost of the cloud server is 2000\$ per year.
2. Cost of training the hotel team is 200\$.
3. Cost of node.js course is 1000\$.
4. Profit of hotel increase by 10000\$ per month.

Organizational Feasibility

1. Online authorization is more reliable.
2. Using email to receive reports.

Schedule Feasibility

1. The first release will be finished on 1/1/2022

Time Estimation

| | Planning | Analysis | Design | Implementation |
|--|------------|----------|------------|----------------|
| Standard percentages | 15% | 20% | 35% | 30% |
| Estimated time based on planning time | 1.5 months | 2 months | 3.5 months | 3 months |

Tasks Identification

| Name of Task | Perform feasibility analysis |
|-------------------------|------------------------------|
| Start Date | 1/9/2021 |
| End Date | 4/9/2021 |
| Person assigned to task | Mohamed Hassan |
| Priority | High |
| Resources Needed | Microsoft Word |
| Estimated Time | 40 hours |
| Actual Time | 36 hours |

| Name of Task | Methodology |
|-------------------------|----------------|
| Start Date | 5/9/2021 |
| End Date | 7/9/2021 |
| Person assigned to task | Mohamed Badr |
| Priority | high |
| Resources Needed | Microsoft Word |
| Estimated Time | 16 hours |
| Actual Time | 13 hours |

| Name of Task | Task Identification |
|-------------------------|---------------------|
| Start Date | 8/9/2021 |
| End Date | 10/9/2021 |
| Person assigned to task | Mohamed Mosaad |
| Priority | High |
| Resources Needed | Microsoft Word |
| Estimated Time | 20 hours |
| Actual Time | 22 hours |

| Name of Task | Time estimation |
|-------------------------|------------------------|
| Start Date | 8/9/2021 |
| End Date | 11/9/2021 |
| Person assigned to task | Mohamed Badr |
| Priority | Low |
| Resources Needed | Microsoft Excel |
| Estimated Time | 17 Hours |
| Actual Time | 15 hours |

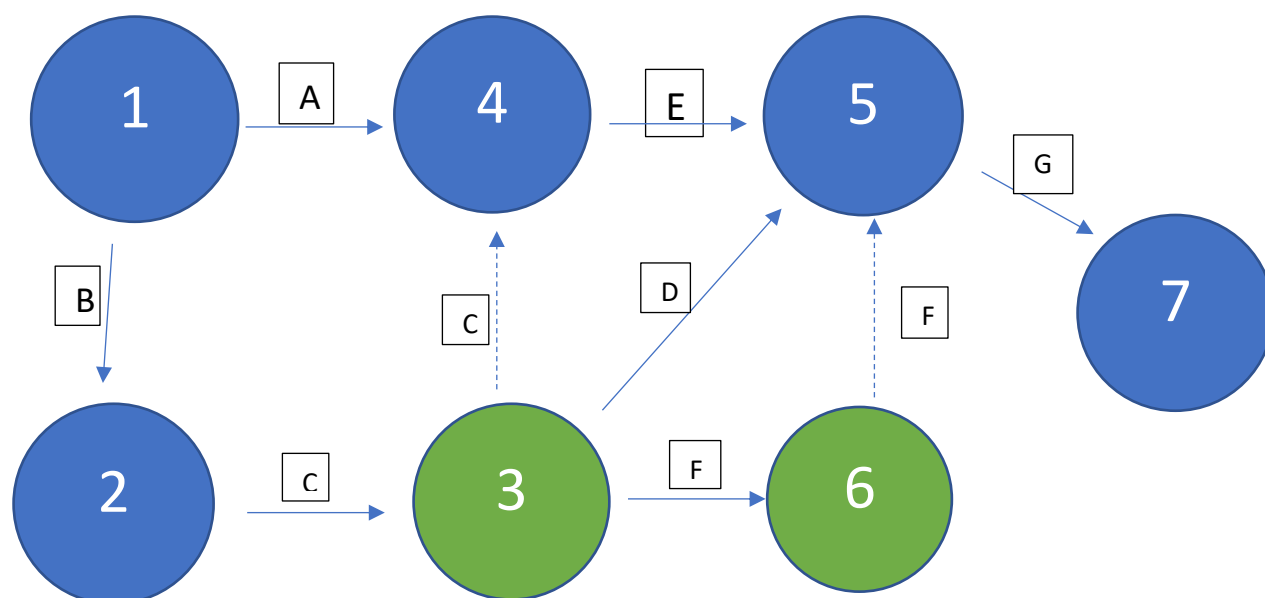
| Name of Task | Perform GUI |
|-------------------------|--------------------|
| Start Date | 1/10/2021 |
| End Date | 1/11/2021 |
| Person assigned to task | Mohamed Hassan |
| Priority | Medium |
| Resources Needed | V S Code |
| Estimated Time | 25 days |
| Actual Time | 26 days |

| Name of Task | Pert Chart |
|-------------------------|--------------------|
| Start Date | 8/10/2021 |
| End Date | 13/10/2021 |
| Person assigned to task | Mohamed Abd Alaziz |
| Priority | medium |
| Resources Needed | Microsoft Excel |
| Estimated Time | 20 hours |
| Actual Time | 17 hours |

| Name of Task | Gnatt Chart |
|-------------------------|--------------------|
| Start Date | 13/10/2021 |
| End Date | 15/10/2021 |
| Person assigned to task | Nada El Said |
| Priority | medium |
| Resources Needed | Microsoft Excel |
| Estimated Time | 30 hours |
| Actual Time | 29 hours |

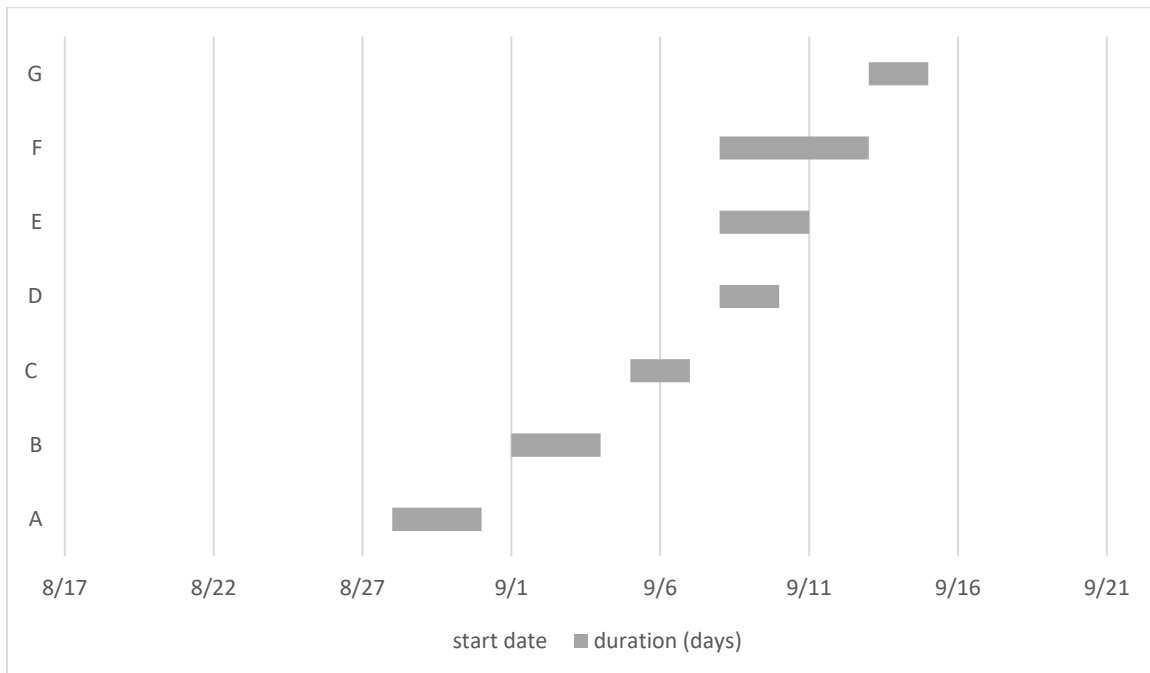
Pert Chart (MS-Project)

| Task Id | Task Name | | Content | Predecessors | duration |
|----------|---------------------|----------------------------|--|--------------|----------|
| A | System Request | A1 A2 A3 A4 | Business need Business requirement Business value Special issues | — | 3 |
| B | Feasibility study | B1 B2 B3 B4 | Technical Economic Operational Schedule | — | 3 |
| C | Methodology | — | Agile(way) | B | 2 |
| D | Task Identification | D1 D2 D3 D4 D5 | Name of Task Person assigned Priority Estimated time Actual time | C | 2 |
| E | Time Estimation | — | | A,C | 3 |
| F | Pert Chart | — | | C | 5 |
| G | Gnatt Chart | — | | D,E,F | 2 |



Gantt chart (MS-Project)

| | | | Start | End |
|----------|---------------------|--------------|-----------|-----------|
| A | System Request | — | 28/8/2021 | 31/8/2021 |
| B | Feasibility study | — | 1/9/2021 | 4/9/2021 |
| C | Methodology | B | 5/9/2021 | 7/9/2021 |
| D | Task Identification | C | 8/9/2021 | 10/9/2021 |
| E | Time Estimation | A,C | 8/9/2021 | 11/9/2021 |
| F | Pert Chart | C | 8/9/2021 | 13/9/2021 |
| G | Gnatt Chart | D,E,F | 13/9/2021 | 15/9/2021 |



Interview Reports

Interview Report

Person Interviewed: Mr. Mohamed Saad, Senior, Human Resources.

Interviewer: Mohamed Mosaad.

Purpose of Interview:

- This interview aimed to determine the problems encountered by the employees of hotels. More specifically, this study obtained the profile of the respondents in terms of gender, age, civil status, educational attainment, position, and years of service; determined the common problems encountered by the hotel employees with the management and with the customers; sought the significant relationship between the demographic profile of the respondents, and problems encountered with the management and with the customers; established a plan to solve the problems encountered by the hotel employees.

Summary of Interview:

1-Problems Encountered by Hotel Employees with the Management:

- The respondents sometimes encountered economic problems. The problems that the respondents have sometimes encountered and have the highest rank are the management does not have complete equipment and facilities.
- It is closely followed by not giving incentives for extra work and benefits like 13th month pay and interpreted as “sometimes”.
- Last in rank is that the respondents never encountered that management are delayed in paying salaries and overtime.

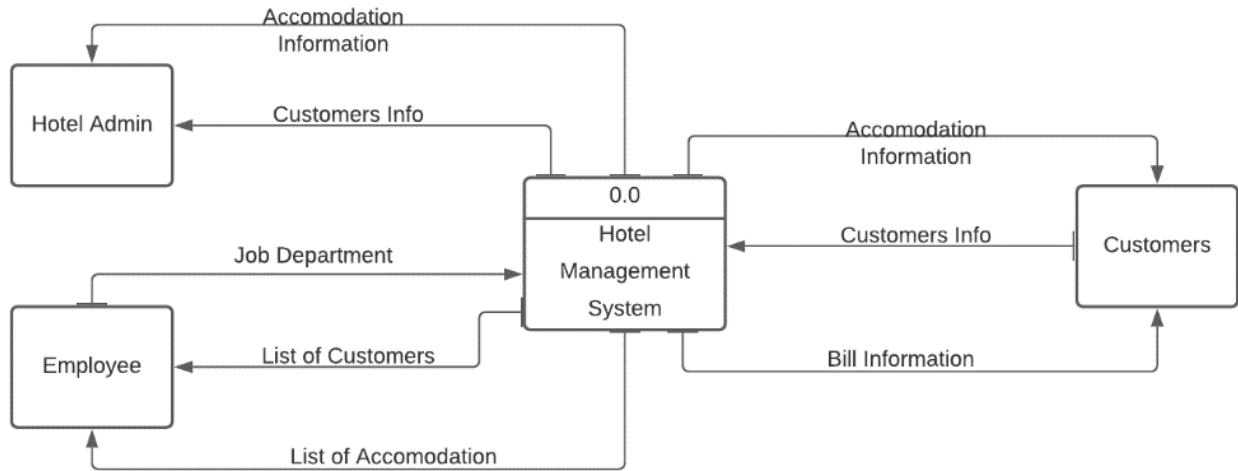
2-Problems encountered by Hotel Employees with the Customers:

- The employee sometimes encounter customers who are too demanding, too messy , too impatient and too bossy.
- However, most of the respondents never encountered customers who discriminate the employees.
- This implies that even the employees encountered problems with the customers; the employees did not recognize it as a problem because it is just part of their job.

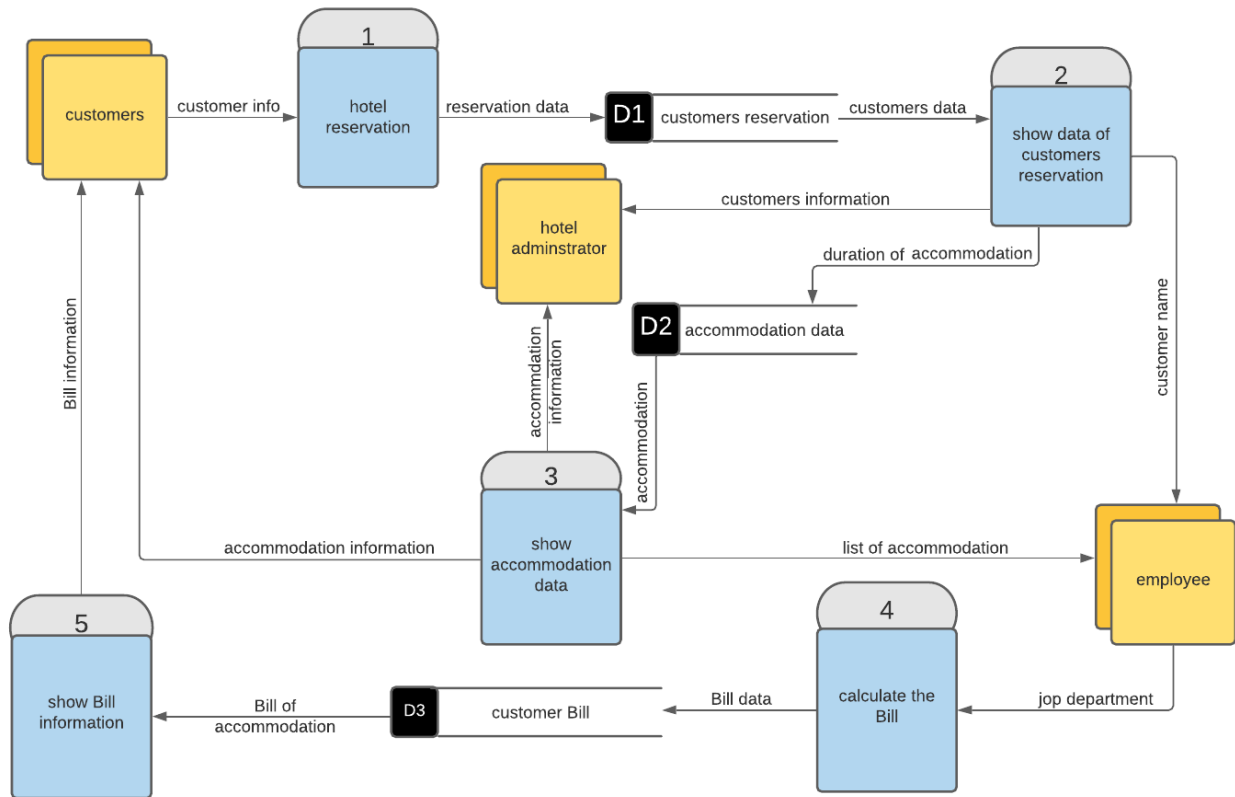
Open Items:

- Develop a plan to solve the problems faced by the hotel employees.
- Solve economic problems and provide complete equipment and facilities.
- Pay salaries on time and overtime incentives.
- Establish rules to eliminate customer chaos.

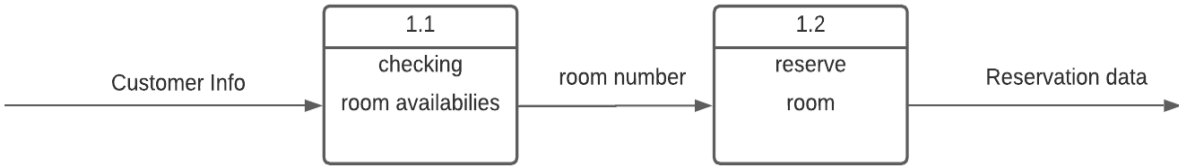
Data Flow Diagram - Context Diagram



Data Flow Diagram – Level/Diagram 0



Data Flow Diagram – Level 1



Normalization

| Hotel-id | Customer-id | employee | name | phone | address | email | Qualification |
|----------|-------------|----------|-------------|--------|---------|----------------------|--|
| 1 | Cus02 | 040 | helton | 056789 | Caro | Helton567@gmail.com | Simple booking Fast, friendly, first contact |
| 3 | Cus02 | 048 | Du and ku | 034982 | Tanta | Du528@gmail.com | A variety of excellent food and drink |
| 5 | Cus03 | 052 | Guest house | 076235 | Alex | Guast948@gmail.com | One site service that delight |
| 9 | Cus04 | 060 | milia | 098421 | Giza | Milia625@gmail.com | Agentively, Cheerful, helpful Knowledgeable start |
| 11 | Cus05 | 080 | mariote | 042001 | Luxor | Mariote325@gmail.com | A social lobby Referral service 24 fitness centers |
| 15 | Cus06 | 090 | San-susi | 024200 | Aswan | Sans123@gmail.com | Quick resolution of problems |

| Hotel-id | Customer-id | Name |
|----------|-------------|-------------|
| 1 | Cus02 | Helton |
| 3 | Cus02 | Du and ku |
| 5 | Cus03 | Guest house |
| 9 | Cus04 | Milia |
| 11 | Cus05 | Mariote |
| 15 | Cus06 | Sas-susi |

| Customer-id | Name | Phone | Address | Email |
|-------------|-------------|---------|---------|----------------------|
| Cus02 | Helton | 05678 | Caro | Helton567@gmail.com |
| Cus02 | Du and ku | 034982 | Tanta | Du528@gmail.com |
| Cus03 | Guest house | 076235 | Alex | Guast948@gmail.com |
| Cus04 | Milia | 0984211 | Giza | Milia625@gmail.com |
| Cus05 | Mariote | 042001 | Luxor | Mariote325@gmail.com |
| Cus06 | Sas-susi | 024200 | Aswan | Sans123@gmail.com |

| Hottel-id | Employee-id | Name | Address | Qualifications |
|-----------|----------------------|-----------|---------|---|
| 1 | Hattal567@gmail.com | Hattal | Caro | Simple Booking , fast friendly firstcontact |
| 3 | Du528@gmail.com | Duandku | Tanta | A variety of Excellent food and Drink |
| 5 | Guast548@gmail.com | Guashouse | Alix | One site service that delight |
| 9 | Milia625@gmail.com | Milia | Giza | A genuinely cheerful helpful knowledge ablestart |
| 11 | Mariote325@gmail.com | Mariote | Luxor | Asocial lobby Referral service 24 fitness centers |
| 15 | Sans123@gmail.com | Sas-sus | Aswan | Quick resolution of problems |

Entity Relationship Diagram (ERD)

