| Cairo University  Faculty of Engineering  Computer Engineering Department  CMPN202 | **CHS - team 2** |
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| Introduction to Database Systems  <Farm DBMS>  <**Project Proposal Report**>  Team Number: 2  **Team Members:**   | Name | ID | | --- | --- | | محمد حسين رجب حسين جزر | 1190566 | | كريم حافظ عبدالعال حافظ السلماوى | 1190432 | | احمد ماهر احمد احمد | 1190260 | | ندى هشام أنور حسين | 1190185 |   **Contact info:**   | Name | E-mail | | --- | --- | | محمد حسين رجب حسين جزر | mohamed.hussien01@eng-st.cu.edu.eg | | كريم حافظ عبدالعال حافظ السلماوى | Kikosalmawy45@yahoo.com | | احمد ماهر احمد احمد | A7medmaher309@gmail.com | | ندى هشام أنور حسين | dodyhesham2001@gmail.com |   <**5/11/2021**> | |

**Proposed project description:**

This project is a database for a farm, the farm has two lands (sections), land for agriculture, and one for raising different types of animals, the aim of the project is to build a strong database for handling a farm system and help the workers to deal with the jobs and tasks and with the data related to it more easily.

The project includes database for the crew of the farm (Manager, middle manager, mechanical engineers, agricultural engineers, veterinary doctors, Warehouse Supervisor, workers...), along with data bases for the animals, crops, equipment, warehouse, lands, vehicles.

**List of system users and Functionalities that our system provide:**

| User | Functionalities |
| --- | --- |
| Farm Manager  (Head) | Setting budgets and production targets |
| give quick orders to worker's leaders and sub managers |
| Organize the schedule of the workers and their shifts |
| Supervising other staff |
| Organize the trade (imports and exports) |
|  |
|  |
| Middle managers  (one for each section) | quick access to farm manager |
| Check the other crew work and report about the other workers and their evaluation |
| give Salaries |
| hiring and firing daily workers |
| Keeping record of warehouse |
| Do statistics of the work |
| Monitoring shipment and provisions. |
| Agricultural engineer | Assign tasks to workers under his command and check the work done |
| evaluate lands and corps status |
| sending reports to the manager |
|  |
| Mechanical  Engineer | Assign tasks to workers under his command and check the work di=one |
| Evaluate machines status |
| Sending reports on the work rate to the manager |
| direct communication with agricultural engineer |
| Veterinary doctors | Treat the animals and look after their health |
| Send reports to the manager about the needed equipment or medicine needed |
| Send animals’ health data and information |
|  |
| Warehouse and transportation Supervisor | Supervise the warehouse and check the in and out Goods stored in it and the vehicles transporting from and to the farm |
| Send the needed data to the farm manager |
| Send reports to the farm manager |
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**List of real-world entities:**

| **Entity** | **Description** |
| --- | --- |
| Farm Manager | He is a person who is responsible for managing the farm and sitting targets. |
| Middle manager | He is a person who is under the farm manager in authority and handle the tasks that the farm manager doesn't |
| Mechanical engineer | He is a person who is responsible for maintaining the equipment in the farm if any breakdown occurred. |
| Agricultural engineer | He is a person who is responsible for testing the soil to know its properties, so that he will be able to choose the right seeds to be planted in it, to make a good use of the soil without wasting it. He also determines the suitable season to grow a certain crop. |
| Veterinary doctors | They are responsible for looking after animals and treating them if they have infection or when they have a disease. So that we can get a product of high quality. |
| Animals |  |
| Warehouse | The place where we will store crops. It will also have refrigerators to store dairy products in low temperature to keep them until they are sold to traders. |
| Vehicles | The equipment that will be used in the farm to plough the ground (soil) |
| Employees | The daily (or weekly) workers that work in the two sections of the farm. |
| Farmland | The place which will be used to plant the crops in different types. |
| Farmhouse | The place which will be used to raise farm animals such as(cows, chicken, sheep and goats) |
| Importers | People who are responsible to provide the farm with supplies such as fodder (the source of nutrition for animals) |
| Exporters | They are the traders who will work for our farm and sell crops and dairy products to achieve our target. |