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|  | **HASAN KALYONCU UNIVERSITY**  **Computer Engineering Department** **CENG 499 Project Proposal Form** |

**Part I. Project Proposer**

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**Part II. Project Information**

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| **Starting Term** | |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 2 | 0 | 2 | 2 | / | 2 | 0 | 2 | 3 | |
| **Title of the Project** | Cow Dairy Farming Management Application |
| **Project Description** | |
| Cow dairy farming for milk production requires large amount of investment and close care of individual animals in the farm. Some large-scale farms uses advanced technology including robotics and digital systems to track the overall performance of the farms by considering overall and even the daily performance of the animals. But still small-scale farmers uses papers to track the daily health and milk performances of the cows in their farms.  Nowadays, the smartphones and tablets are commonly-used devices. People are familiar to use mobile devices for multi-purpose tasks in our daily lives. Using smartphones can facilitate and improve the management of such small-scale farms.  In this project, a mobile application will be developed to efficiently track and overview the performance and health of cows in the small-scale farms. By using our application, farmers can easily record the information about a cow in digital medium that can be accessed/used.  The program can be modified/improved in many aspect including financial purposes. Even though the data will be entered manually can be automatically linked to any automated system which reads the daily data. Again as future work, some Artificial intelligence modules can be integrated to take decision and propose actions for a cow based on the historical data stored in the system. | |
| **Project Justification** | |
| **Novelty** | |
| **New aspects** | Developing an application to follow up the performance and health of cows in a Cow Dairy Farming. |
| **Complexity** | |
| **Challenging problem and issues** | Designing the efficient user interface and presenting the historical data for an individual cow in a useful way/s. |
| **Related computer science fields and subfields** | IoT, database, mobile application development. |
| **Tools** | Google Android platform and/or Xcode Apple developer.  SQlite Database on Android or firebase  .  SQL Server |
| **Risk involved** | |
| **Potential problems and alternative solutions** | No potential problem exist, the program will be designed to observe fundamental data but further aimed to be improved as much as possible including extra features. |
| **Minimum work required** | 4 MONTHS for design and 4 MONTHS for implementation. |