|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **SEMESTER 4** | | | **FALL** | **BSCS-4B** | | **2022** |
| **TITLE OF PROJECT** | | | | | | |
| **Inventory Management System** | | | | | | |
| **Group Members** | | | | | | |
| **S#** | **Student(s) Name** | | | | **Registration Number** | |
| **1** | **Fatima Butt** | | | | **02-134201-037** | |
| **email:** | | **fatimabutt18899@gmail.com** | | **No:** | **03132949695** | |
| **2** | **M. Nawfal Burhan** | | | | **02-134201-035** | |
| **email:** | | **nawfalmuhammad@hotmail.com** | | **No:** | **03312369489** | |
| **3** | **Mariam Reem Siddiqui** | | | | **02-134201-030** | |
| **email:** | | **mariamreem127@gmail.com** | | **No:** | **03342225332** | |
| **EXECUTIVE SUMMARY OF PROJECT PROPOSAL** | | | | | | |
| Our Project is based on an inventory management system, which can be used as a stock management system too. It will have all the necessary features to track the number of goods and records of transactions. The database will hold records that can be updated, added, or removed anytime.  Our project uses a SQL Server database to store all the information required. The information can be displayed using stored procedural queries/views. The tables were made using an ERD we designed beforehand. The database is optimized well with the correct format of columns with the appropriate data type. The keys and constraints are also applied in the tables wherever required to create bridge tables to retrieve information from other tables. | | | | | | |
| **PROJECT PURPOSE, SCOPE, AND OBJECTIVES** | | | | | | |
| The primary purpose of inventory management is to ensure there are enough goods or materials to meet demand without creating overstock, or excess inventory. Good inventory management solutions save time that could be spent on other activities. With solid inventory management, you know what’s in stock and order only the amount of inventory you need to meet demand. Inventory management helps track what’s in stock and what’s on backorder, so you don’t oversell products.  Inventory management helps to manage the stock of the company. it provides proper details of the products what kind of raw material, what are the sizes we require, etc. to the purchasing department. When the inventory management provides proper information to management, they buy according to them which helps the company to store fewer products. Inventory management helps to improve the productivity of the machines and manpower. Employees are aware of stocks and the quantity require to produce. Inventory management helps to improve the profits of the company. it helps to provide proper information about stocks, which saves the unnecessary expenses on stocks.  The primary goal of inventory management is to ensure that all kinds of materials are accessible whenever the production department needs them, ensuring that production is not stopped or slowed down due to a lack of resources. It is thus prudent to maintain a buffer stock of all critical goods to keep production on track. It is impossible to fulfill a received order if you do not have an accurate count of the items in your possession. To meet requests, you must access the appropriate goods at the right time. Otherwise, you may end yourself in a state of confusion.  To fulfill the needs for quality products, the concern must maintain an adequate supply of completed items to guarantee that customers’ orders are fulfilled. It will increase the company’s brand image. Inventory management is very successful in mitigating losses. When there is no monitoring system in place, it is very normal for an item to be squandered or misplaced. Inventory management attempts to minimize inventory waste at all stages, such as during storage in godowns or during production in the plant. | | | | | | |
| **PROJECT DESCRIPTION** | | | | | | |
| Our project uses a SQL Server database to store all the information required. Our database is in a normalized state and flexible enough to perform tasks on a small business level as the queries are not too difficult to understand. The information can be displayed using stored procedural queries/views. The tables were made using an ERD we designed beforehand. We made sure that there would be no data redundancy to avoid any collisions in the database. The database is optimized well with the correct format of columns with the appropriate data type. The keys and constraints are also applied in the tables wherever required to create bridge tables to retrieve information from other tables. In the future, we would like to add more features and options to our database management system and would also like to add front-end support to create a user-friendly interface for clients who would like to use our management system. | | | | | | |
| **TEAM PROFILE** | | | | | | |
| 1. **Muhammad Nawfal Burhan** 2. **STRENGTH**   programming, presentation, decision making, creative thinking, time management, documentation, ERD.   1. **QUALIFICATIONS** 2. **Matriculation:** Bai Virbaiji Soparivala Parsi High School with major of science general 3. **Intermediate:** Aga Khan Higher Secondary School, Karachi with major in Pre-Engineering 4. **Fatima Butt** 5. **STRENGTH**   programming, solving complex problems, decision making, debugging skills, ERD, time management.   1. **QUALIFICATIONS** 2. **Matriculation:** AES School for Girls with major of science general 3. **Intermediate:** Aga Khan Higher Secondary School, Karachi with major of computer science 4. **Mariam Reem:**   **1)STRENGTH**  Programming, solving complex problems, debugging skills, time management, decision making, Querying  **2) QUALIFICATIONS**  **(1) Matriculation:** AES School for Girls with major of science general  **(2) Intermediate:** Bahria College Karsaz | | | | | | |
| **ASSUMPTIONS AND CONSTRAINTS** | | | | | | |
| * The database can store and hold records in their updated form. * The database is in normalized form and has no useless attributes. * The database can be used on a small business level. * The database lacks some features that are considered on a big business level. * No front-end platform for clients. A person with some basic knowledge of database design is required to operate with the database management system. | | | | | | |