**MongoDB Database Project Proposal**

BDM 1113 - NoSQL Database 02 (DSMM Group 2)

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# Project Management

1. Agile Project Planning

The team will implement scrum methodology in the course of the project. We will follow this as reference (<https://www.pmi.org/learning/library/agile-project-management-scrum-6269>) and implement the following

* Sprint Planning Meeting
* Review Product Backlog
* Sprint Goal
* Estimate Sprint backlog
* Commit to the sprint
* Sprint
* Development
* Validation
* Daily Scrum meetings (15 mins)
* What task is finished
* What task will be done today
* Obstacles/Blockers
* Sprint Review
* Demo features
* Discuss what’s done and not done
* Sprint Retrospective
* Insect and Adapt

1. Member Roles

Nikhil Shah –Acting Product Owner

Jovi Fez Bartolata – Dev/Val

Maricris Resma – Dev/Val

Jefford Secondes – Dev/Val

Luz Zapanta– Dev/Val

***Scrum Master - TBD***

1. Activity Dashboard for Progress Reporting – use Excel or <https://trello.com/>
2. Versioning Control System – the team will try to utilize GitHub for the code archival, versioning and sharing

1. Project Proposal 1: Ecommerce Inventory Management Database

We propose to create a database for managing product orders and inventory for the bakery business. The product should contain information about the Customers, Products, Inventory, etc.

The group will go through the following steps in completing this project:

1. Find and organize all the information required or involved in a product inventory
2. Divide all the information into collections
3. Specify the primary key ids, check constraints, and not null constraints, fields and values
4. Setup the relations
5. Design patterns and model our data in MongoDB to create schema
6. Create the database
7. Use MongoDB to create the documents, collections,
8. Populate the database with test data
9. Validate
10. Document the project, containing at least the pieces as pointed out in the above.
11. If still have enough time, implement interface.

**Product Backlog (divided into 3 sprints):**

1. Set-up archive in Git
2. Data Gathering
3. Build Schema
4. Create initial collections (1/2)
5. Populate collections (1/2)
6. Create initial collections (2/2)
7. Populate collections (2/2)
8. Create query to browse all products, filter based on name, price range, expiration date, quantity, rating
9. Design GUI
10. Create GUI (1/3)
11. Create query to get most and least profitable goods
12. Create query to get most and least sellable goods
13. Complete GUI (2/3)

<https://www.youtube.com/watch?v=vNegKfkopoQ>

<https://docs.djangoproject.com/en/4.1/ref/models/options/#table-names>

<https://www.youtube.com/watch?v=FLZYLog369s>

<https://code.djangoproject.com/wiki/NoSqlSupport>

<https://www.youtube.com/watch?v=sjMlffIVGf8>

<https://www.youtube.com/watch?v=c45JJfgMyWo>

<https://www.youtube.com/watch?v=I17uA1sVQ2g>

<https://www.digitalocean.com/community/tutorials/how-to-connect-a-django-app-to-mongodb-with-pymongo>

<https://www.mongodb.com/compatibility/mongodb-and-django>

**References:**

<https://www.mongodb.com/compatibility/mongodb-and-django>

**https://www.javatpoint.com/django-crud-application**

1. **Download django**

pip install djongo

pip list

1. **Create Django project and Django app**

django-admin startproject proj\_1

cd proj\_1

python manage.py startapp djangoapp

1. **Project Structure**

Text

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1. **Database Setup and CRUD operations function definition**

A screenshot of a computer

Description automatically generated with medium confidence

1. **Create URLs**
2. **Create html templates**
3. **Run server**

Python manage.py runserver

Text

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**Graphical user interface, text, application, email

Description automatically generated**

**Graphical user interface, text, application

Description automatically generated**

**Table

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**Graphical user interface

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1. **Improve Design through bootstrap**

[Bootstrap · The most popular HTML, CSS, and JS library in the world. (getbootstrap.com)](https://getbootstrap.com/)

<!-- CSS only -->

<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-rbsA2VBKQhggwzxH7pPCaAqO46MgnOM80zW1RWuH61DGLwZJEdK2Kadq2F9CUG65" crossorigin="anonymous">

1. **Improvement using install djongo**

pip install djongo

pip list

**Create models**