# 3D Fashion Data Management – Project Status Report

Submitted by: Golan Levi | Dana Kaplan  
  
The goal of this project is to build a modular and intelligent system for managing 3D fashion data. The system is designed to unify the workflow starting from various 3D file formats (e.g., OBJ, PLY), converting them into a unified format (GLB), and then processing and storing both the files and their associated metadata in suitable databases.  
  
Technologies we have used so far include:  
- Python with Flask for backend API services  
- Blender and Assimp for format conversion and validation  
- PostgreSQL for storing structured metadata (such as category, color, polygon count, etc.)  
- MongoDB with GridFS for storing and serving 3D model files  
  
We developed a data pipeline that scans item folders, identifies relevant files, converts them to a unified format, and uploads them to the appropriate databases. After each run, a status report is generated showing the number of items successfully converted and uploaded.  
  
During the process, we encountered a major delay due to the collapse of the startup led by Gil, who originally initiated the idea. There was no consistent leadership, and each manager referred us to someone else. This led to a prolonged period of confusion and lack of direction.  
  
Despite this, we chose to continue the project independently, redefining the scope and structure based on our own understanding.  
  
As of now, we are approaching the end of the initial integration phase, but several key tasks remain:  
- Resolving format compatibility issues (especially with GLB files that are not rendering correctly in standard viewers)  
- Integrating a viewer system for displaying 3D items interactively in the browser or via Unity  
- Connecting the databases fully to the user interface  
- Adding filtering and search capabilities based on item properties (e.g., type, color, category)  
- Bug fixing and performance optimization throughout the pipeline