# Data Design



Review and develop data objects, relationships, data flow and content

Bryan also done ERD

Identify all data structures and the operations performed on them

Create the data dictionary to represent the relationships among data objects and the constraints on the elements of the data structure

If using a database, perform database design

Data-to-Process CRUD Matrix if applicable

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# Process Design



Detailed description of each software component:

* Process models, either traditional (DFDs & all required levels) or event-driven (decomposition diagram, event response diagrams and use case lists etc.
* Process descriptions (using structured English), expanded use-case narratives (if not already done), possibly decision tables

Address processing controls

Include algorithms, as well as an overview of the components using structure charts, hierarchy charts, etc.

If using OOM/P you will need class diagrams and sequence diagrams, either high-level with a data dictionary, or low-level which includes all the definitions.

**Process Descriptions**



Save Profile

1. Get user altered profile data
2. Request database to write changes to profile with new data

Load Profile

1. Make database request for all profile IDs
2. Display current profiles to user
3. Get profile selection from user
4. Request transfer of profile data from database with a given profile ID
5. Display profile information to user

Create Profile

1. Display form to collect initial user details
2. Request creation of profile from database

Delete Profile

1. Get profile id from user
2. Make request to database to delete profile with the given id

Request Performance Report

1. Set performance report selection criteria
2. Make database request for performance reports that meet selection criteria
3. Accept data from database
4. Transfer raw report data to **Format Performance** **Report** process

Format Performance Report

1. Read performance report data
2. Collate report data by date
3. Create graph with performance score extracted from each report data
4. Display performance graph to client

Connected Device Selection

1. Get list of connected devices
2. Get user selection of connected device
3. Request device data transfer to client from list
4. Transfer device data to **Configure Device** process

Configure Device

1. Retrieve changes to device settings from user
2. Write changes to device settings to device data

Game Level Selection

1. Get all game levels and display to user
2. Get level selection from user
3. If user accepts game level, transfer to **Play Game Level** process

Play Game Level

1. Retrieve level data
2. Transfer to game execution process with a level data

Process Game Level Summary Data

1. Read end of game data
2. Retrieve devices used, level ID, profile ID and current date
3. Request creation of new performance report from database with inputs from step **2)**