1. – Design

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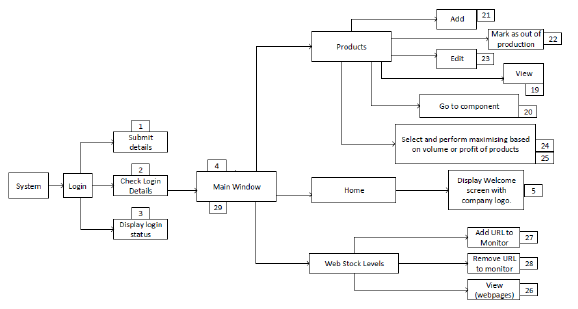
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# Breakdown of Problem

## 3.11 Justification of Breakdown

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## 3.12 Links between Objectives and Sub Problems

|  |  |  |
| --- | --- | --- |
| Objective # (Investigation) | Objective Description  (Investigation) | Sub-Problem #  (Breakdown Diagram) |
| 1 | Submit Login Details | 1 |
| 2 | Check Login Details | 2 |
| 3 | Display Login Details | 3 |
|  |  |  |
|  |  |  |

# 3.2 Input and Output Designs

## 3.21 Identification of Data

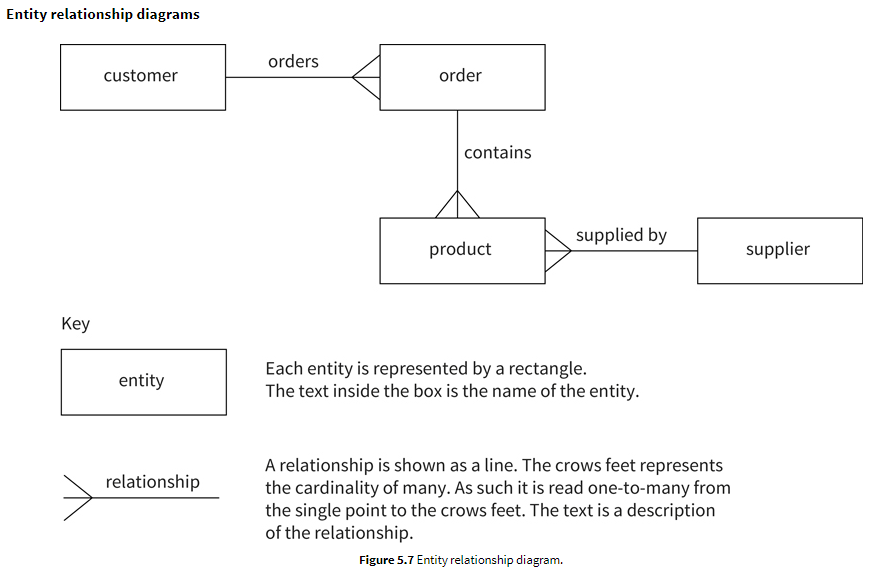
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| File / Screen Name | Feature | Input/ Output | Data Used | Consideration of Data Used |
| Home | Login? | Input | Username, Password |  |
| Staff | Add? |  | * Staff ID * Name * Etc. |  |
| Staff | Search by? |  |  |  |
| Staff | Edit? |  |  |  |
| 3rd Screen | Search by?, |  |  |  |
| 3rd Screen | Sort by?, |  |  |  |
| 3rd Screen | Filter by? |  |  |  |
| Reports? |  |  |  | Printable ???? |
| etc |  |  |  |  |

## 3.22 Designs of Input & Output

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ADD  SCREEN / DCF / REPORT  DESIGN HERE  (1 of these for each) | | | | |
| THIS DESIGN WAS CREATED IN MS-VISIO AND IS NOT AN IMPLEMENTATION | | | | |
| Name of Design | **Description of Design & Purpose** | **Components Used & Justification** | **Font: Type, Colour, Size** | **Objective #’s met** |
| Staff Form |  |  |  |  |

# 3.3 Files & Data Structures

## 3.31 Entity Relationship Diagram



## 3.32 Methods of Access inc. Files

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Entity | Classes | Expected # of Records | Storage  (Files & Arrays) | Method of Access | Justification for Method of Access |
| *Staff* | *Staff.java*  *StaffList.java* |  |  | *Serial, Sequential, Random Access* | * *Number of records to access* * *Search techniques and categories* * *How often accessed* * *Use (temporary/permanent.* * *Disadvantages of other options* * *Programming time required* |
| *??* | *??.java* |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

## 3.33 Data Structure Designs

### Staff.java

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Field Name | Key Field | Description | Data Type | Length | Example Data |
|  | *PK* |  |  |  |  |
|  | *FK* |  |  |  |  |
|  | - |  |  |  |  |
|  | - |  |  |  |  |

### ???.java

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Field Name | Key Field | Description | Data Type | Length | Example Data |
|  | *PK* |  |  |  |  |
|  | *FK* |  |  |  |  |
|  | - |  |  |  |  |
|  | - |  |  |  |  |

# 3.4 Validation

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Class | Field | Val. Type | Val. Rule/Description | Error Message |
| *1* | *Staff.java* | *???* | ***Type / Length / Format /Range / Lookup / Presence*** |  |  |
|  |  |  |  |  |  |

# 3.5 Processes

## 3.51 Objectives Links with Data/Files

|  |  |  |
| --- | --- | --- |
| Objective #  (Investigation) | Process / Objective Desc  (Investigation) | Data/Files Used |
| 1 | Submit Login Details | Username,Password |
| 2 | Check Login Details | Users.txt |
| 3 | Display Login Details | Username,Password |
|  |  |  |
|  |  |  |
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## 3.52 Processing Routines

|  |
| --- |
| **// Objective 1 – Add 2 numbers:**  **START**  **SET** number1=0  **SET** number2=0  **INPUT** number1  **INPUT** number2    **OUTPUT** “The Answer is “, (number1+number2)  **END** |
| **// Objective 2 - ???** |
| **// Objective 3 - ???** |
|  |