Design and Costing Assistant

These loop pages describe the structure of the Dataverse tables to be created in Dataverse for the Design and Costing Assistant.

[Design and Costing Assistant Project Planning.loop](https://electricgcouk.sharepoint.com/:fl:/g/contentstorage/CSP_2108e723-be09-4fe4-a3c6-e5bc3850c362/ET7OU_EwqjVMsMOuurnxRhQB4a-EukBrk8MEw3YwfOweLg?e=h93TQV&nav=cz0lMkZjb250ZW50c3RvcmFnZSUyRkNTUF8yMTA4ZTcyMy1iZTA5LTRmZTQtYTNjNi1lNWJjMzg1MGMzNjImZD1iIUktY0lJUW0tNUUtanh1VzhPRkREWWpwZE5xSUE0bzVGdkFTdkNpbzFJX1JoWlF5bkNBYnRUYUwzU3Y5OTc4MUkmZj0wMUlOMzJGS0I2WlpKN0NNRktHVkdMQlE1T1hLNDdDUlFVJmM9JTJGJmZsdWlkPTEmYT1Mb29wQXBwJnA9JTQwZmx1aWR4JTJGbG9vcC1wYWdlLWNvbnRhaW5lcg%3D%3D)

[✅ Dataverse Table Setup Checklist.loop](https://electricgcouk.sharepoint.com/:fl:/g/contentstorage/CSP_2108e723-be09-4fe4-a3c6-e5bc3850c362/EZ4SPEvtIbdNm7K-EXXEufMBZpFsggimgRBjks_z_SWjUA?e=XKhvF8&nav=cz0lMkZjb250ZW50c3RvcmFnZSUyRkNTUF8yMTA4ZTcyMy1iZTA5LTRmZTQtYTNjNi1lNWJjMzg1MGMzNjImZD1iIUktY0lJUW0tNUUtanh1VzhPRkREWWpwZE5xSUE0bzVGdkFTdkNpbzFJX1JoWlF5bkNBYnRUYUwzU3Y5OTc4MUkmZj0wMUlOMzJGS0U2Q0k2RVgzSkJXNUdaWE1WNkNGMjRKT1BUJmM9JTJGJmZsdWlkPTEmYT1Mb29wQXBwJnA9JTQwZmx1aWR4JTJGbG9vcC1wYWdlLWNvbnRhaW5lcg%3D%3D)

[Design and Costing Flowchart.loop](https://electricgcouk.sharepoint.com/:fl:/g/contentstorage/CSP_2108e723-be09-4fe4-a3c6-e5bc3850c362/EXJSdMh8FpJPnMzWpxUaPngBzYnQoVbI-3WE_gTqUP0Cjw?e=8YkoEm&nav=cz0lMkZjb250ZW50c3RvcmFnZSUyRkNTUF8yMTA4ZTcyMy1iZTA5LTRmZTQtYTNjNi1lNWJjMzg1MGMzNjImZD1iIUktY0lJUW0tNUUtanh1VzhPRkREWWpwZE5xSUE0bzVGdkFTdkNpbzFJX1JoWlF5bkNBYnRUYUwzU3Y5OTc4MUkmZj0wMUlOMzJGS0RTS0oyTVE3QVdTSkhaWlRHV1U0S1JVUFRZJmM9JTJGJmZsdWlkPTEmYT1Mb29wQXBwJnA9JTQwZmx1aWR4JTJGbG9vcC1wYWdlLWNvbnRhaW5lcg%3D%3D)

[Dataverse Project Table.loop](https://electricgcouk.sharepoint.com/:fl:/g/contentstorage/CSP_2108e723-be09-4fe4-a3c6-e5bc3850c362/EXk0gqCbF3xCg8tDzab6IjwB37F-PwXzUajEATymkxFD5g?e=iAtMNc&nav=cz0lMkZjb250ZW50c3RvcmFnZSUyRkNTUF8yMTA4ZTcyMy1iZTA5LTRmZTQtYTNjNi1lNWJjMzg1MGMzNjImZD1iIUktY0lJUW0tNUUtanh1VzhPRkREWWpwZE5xSUE0bzVGdkFTdkNpbzFJX1JoWlF5bkNBYnRUYUwzU3Y5OTc4MUkmZj0wMUlOMzJGS0RaR1NCS0JHWVhQUkJJSFMyRFpXVFBVSVI0JmM9JTJGJmZsdWlkPTEmYT1Mb29wQXBwJnA9JTQwZmx1aWR4JTJGbG9vcC1wYWdlLWNvbnRhaW5lcg%3D%3D)

[Dataverse Materials Table 2.loop](https://electricgcouk.sharepoint.com/:fl:/g/contentstorage/CSP_2108e723-be09-4fe4-a3c6-e5bc3850c362/EbKiKohU7NhEoQaUif136xgBj2RjYRhIe1SLlAlhRAFFPQ?e=0NNJLt&nav=cz0lMkZjb250ZW50c3RvcmFnZSUyRkNTUF8yMTA4ZTcyMy1iZTA5LTRmZTQtYTNjNi1lNWJjMzg1MGMzNjImZD1iIUktY0lJUW0tNUUtanh1VzhPRkREWWpwZE5xSUE0bzVGdkFTdkNpbzFJX1JoWlF5bkNBYnRUYUwzU3Y5OTc4MUkmZj0wMUlOMzJGS0ZTVUlWSVFWSE0zQkNLQ0JVVVJINlhQMllZJmM9JTJGJmZsdWlkPTEmYT1Mb29wQXBwJnA9JTQwZmx1aWR4JTJGbG9vcC1wYWdlLWNvbnRhaW5lcg%3D%3D)

[Dataverse Labour Rates Table 1.loop](https://electricgcouk.sharepoint.com/:fl:/g/contentstorage/CSP_2108e723-be09-4fe4-a3c6-e5bc3850c362/Efpjh_m4jn5DkcqFYpBFSzMB5JQfh2vCtuSZCowz-UTrJQ?e=dJbfZM&nav=cz0lMkZjb250ZW50c3RvcmFnZSUyRkNTUF8yMTA4ZTcyMy1iZTA5LTRmZTQtYTNjNi1lNWJjMzg1MGMzNjImZD1iIUktY0lJUW0tNUUtanh1VzhPRkREWWpwZE5xSUE0bzVGdkFTdkNpbzFJX1JoWlF5bkNBYnRUYUwzU3Y5OTc4MUkmZj0wMUlOMzJGS0gyTU9EN1RPRU9QWkJaRFNVRk1LSUVLU1pUJmM9JTJGJmZsdWlkPTEmYT1Mb29wQXBwJnA9JTQwZmx1aWR4JTJGbG9vcC1wYWdlLWNvbnRhaW5lcg%3D%3D)

[📝 Dataverse Task Units Table.loop](https://electricgcouk.sharepoint.com/:fl:/g/contentstorage/CSP_2108e723-be09-4fe4-a3c6-e5bc3850c362/ESkD53258AhHnEfHtcPN5ZMB1zbV4jHc0p6EcG2rOoQX0g?e=gikXok&nav=cz0lMkZjb250ZW50c3RvcmFnZSUyRkNTUF8yMTA4ZTcyMy1iZTA5LTRmZTQtYTNjNi1lNWJjMzg1MGMzNjImZD1iIUktY0lJUW0tNUUtanh1VzhPRkREWWpwZE5xSUE0bzVGdkFTdkNpbzFJX1JoWlF5bkNBYnRUYUwzU3Y5OTc4MUkmZj0wMUlOMzJGS0JKQVBUWDNPUFFCQkRaWVI2SFdYQjQzWk1UJmM9JTJGJmZsdWlkPTEmYT1Mb29wQXBwJnA9JTQwZmx1aWR4JTJGbG9vcC1wYWdlLWNvbnRhaW5lcg%3D%3D)

[Dataverse Material Task Units Table.loop](https://electricgcouk.sharepoint.com/:fl:/g/contentstorage/CSP_2108e723-be09-4fe4-a3c6-e5bc3850c362/EarAIkj5ZQFClowJPTvTTwQBX9QzkfH4aLMIfaAgnVTnlQ?e=GYVkI5&nav=cz0lMkZjb250ZW50c3RvcmFnZSUyRkNTUF8yMTA4ZTcyMy1iZTA5LTRmZTQtYTNjNi1lNWJjMzg1MGMzNjImZD1iIUktY0lJUW0tNUUtanh1VzhPRkREWWpwZE5xSUE0bzVGdkFTdkNpbzFJX1JoWlF5bkNBYnRUYUwzU3Y5OTc4MUkmZj0wMUlOMzJGS0ZLWUFSRVI2TEZBRkJKTkRBSkhVNTVHVFlFJmM9JTJGJmZsdWlkPTEmYT1Mb29wQXBwJnA9JTQwZmx1aWR4JTJGbG9vcC1wYWdlLWNvbnRhaW5lcg%3D%3D)

Dataverse Table Setup Checklist

| Step | Action | Notes |
| --- | --- | --- |
| 1️⃣ | **Define Table Purpose** | Clarify what the table represents (e.g. Projects, Materials, Labour Rates). |
| 2️⃣ | **List Fields** | Include field name, description, type, and characteristics (e.g. required, indexed). |
| 3️⃣ | **Choose Field Types** | Use appropriate types: Text, Choice, Currency, Date, Lookup, etc. |
| 4️⃣ | **Set Primary Key** | Typically Autonumber or GUID. |
| 5️⃣ | **Add Relationships** | Use Lookup fields to link to other tables (e.g. Customer → Contact). |
| 6️⃣ | **Define Choice Sets** | Centralise status, categories, or types as reusable Choice columns. |
| 7️⃣ | **Include Calculated/Rollup Fields** | For totals, balances, or derived values. |
| 8️⃣ | **Enable Auditing (if needed)** | Track changes for compliance or history. |
| 9️⃣ | **Add Business Rules (optional)** | Automate field behaviour or validation. |
| 🔟 | **Document in Loop** | Use Loop components to track schema, field definitions, and shared lists. |

Design and Costing Assistant Dataverse

| Section | Sub-Page | Information | Details |
| --- | --- | --- | --- |
| Introduction | Project Name | Design and Planning Assistant |  |
|  | Parent System | Electrical Assistant Agent |  |
|  | Purpose | To create costings that can be used to form quotes supplied to customers, manage project opportunities, and report on project financials once the project is closed |  |
| System Architecture | Integration | Part of Electrical Assistant Agent |  |
|  | Technology Stack | Copilot notebooks, Dataverse tables |  |
|  | Main Components | Job Management, Costing and Quoting, Data Storage and Retrieval, Power BI Integration |  |
| Dataverse Tables Design | Job Table | Job Number (Primary Key), Job Description, Start Date, End Date, Status | [Dataverse Job Table Design.loop](https://electricgcouk.sharepoint.com/:fl:/g/contentstorage/CSP_2108e723-be09-4fe4-a3c6-e5bc3850c362/EYWJ2k8VelRHvag4-O2_OD4BRZMCcnasRdFEhNV_q7j3eQ?e=v9UBQa&nav=) |
|  | Costing Table | Costing ID (Primary Key), Job Number (Foreign Key), Item Description, Quantity, Unit Cost, Total Cost |  |
|  | Quote Table | Quote ID (Primary Key), Job Number (Foreign Key), Customer ID, Quote Date, Quote Amount, Approval Status |  |
| Functional Requirements | Job Management | Ability to input job details, Manage job statuses, Track job progress |  |
|  | Costing and Quoting | Input materials and labor costs, Generate costings for jobs, Formulate quotes from costings |  |
|  | Data Storage and Retrieval | Store job details, costings, and quotes in Dataverse tables |  |
|  | Power BI Integration | Use Power BI for viewing and analyzing outputs, Create interactive dashboards to provide an overview of all jobs, their statuses, and financials, Utilize various visualization options to understand data better, Ensure real-time updates by connecting Power BI to Dataverse tables |  |
| User Interface Design | Dashboard | Overview of all jobs and their statuses, Quick access to recent jobs and quotes |  |
|  | Job Management Screen | Form to create and edit jobs, List of all jobs with filter and search functionality |  |
|  | Costing Screen | Form to input material and labor costs, List of costings for each job |  |
|  | Quote Screen | Form to create and edit quotes, List of quotes for each job with approval status |  |
| Implementation Plan | Phase 1: Planning and Design | Finalize system architecture, Design Dataverse tables, Create a detailed project timeline |  |
|  | Phase 2: Development | Set up Dataverse tables, Develop job management module, Develop costing and quoting module, Integrate modules with Dataverse |  |
|  | Phase 3: Testing | Unit testing for each module, Integration testing, User acceptance testing |  |
|  | Phase 4: Deployment | Deploy to production environment, Provide user training, Monitor and troubleshoot |  |
| Project Timeline | Week 1-2 | Planning and Design |  |
|  | Week 3-6 | Development |  |
|  | Week 7-8 | Testing |  |
|  | Week 9 | Deployment |  |

Dataverse Project Table Design

| Field | Details | Dataverse Table Characteristics | Field Type (Choices for Status) |
| --- | --- | --- | --- |
| Job Number (Primary Key) | Unique identifier for each job, Used to link to costing and quoting tables | Primary key, Unique, Indexed | Autonumber |
| Job Description | Brief description of the job, Provides context and details about the job | Text, Not Null | Text |
| Work Type | Type of work being performed, Domestic or Commercial | Choice. | **Choices:**  Domestic/Commercial |
| Start Date | Date when the job is scheduled to start, Used for timeline and planning | Date, Not Null | Date and Time |
| End Date | Date when the job is expected to be completed, Important for tracking job duration and completion | Date, Nullable | Date and Time |
| Status | Current status of the job, e.g., Not Started, In Progress, Completed, Helps in tracking and managing job progress | Choice, Not Null, Indexed | Choice  **Choices:** Opportunity, Bid/Quote, Planning, Active, On hold, Cancelled, Post-completion, Completion |
| Estimated Value | Estimated monetary value of the job, Useful for budgeting and forecasting | Number, Nullable | Currency |
| WIP Value | Work In Progress value, amount of work completed but not yet invoiced | Number, Nullable | Currency |
| Invoiced Value | Total value that has been invoiced to date | Number, Nullable | Currency |
| Paid Value | Total amount that has been paid by the client | Number, Nullable | Currency |
| Retention Value | Amount held as retention, to be paid upon completion or at agreed milestones | Number, Nullable | Currency |
| Final Account Value | Final agreed value of the job after all adjustments | Number, Nullable | Currency |
| Variation Value | Total value of variations (changes) to the original contract | Number, Nullable | Currency |
| Outstanding Balance | Amount still owed by the client | Number, Nullable | Currency |

Dataverse Project Table Design

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| Outstanding Balance | Amount still owed by the client | Number, Nullable | Currency |

Dataverse Materials Table

| Field | Details | Dataverse Field Characteristics | Field Type |
| --- | --- | --- | --- |
| Material Name | Name of the material | Single Line of Text | Text |
| Material Group | Predefined group for the material | Choice (Option Set) | Choice |
| Units | Specify 'item' or '3m' | Choice (item/3m) | Choice |
| Unit Measure | Specify 'item' or 'm' | Choice (item/m) | Choice |
| Unit Cost (£) | Cost per unit in pounds | Decimal Number or Currency | Number (Currency) |
| Discount (%) | Percentage discount applied | Decimal Number | Number (Percent) |
| Material Net (£) | Total cost after discount | Calculated Field (Currency) | Number (Currency) |
| Material Net +10% (£) | Net cost plus 10% | Calculated Field (Currency) | Number (Currency) |
| Material Net +20% (£) | Net cost plus 20% | Calculated Field (Currency) | Number (Currency) |
| Material + VAT (£) | Net cost with standard VAT | Calculated Field (Currency) | Number (Currency) |
| Material +10% VAT (£) | Net cost plus 10% and VAT | Calculated Field (Currency) | Number (Currency) |
| Material +20% VAT (£) | Net cost plus 20% and VAT | Calculated Field (Currency) | Number (Currency) |

Dataverse Labour Rates Table

| Field | Details | Dataverse Table Characteristics | Field Type |
| --- | --- | --- | --- |
| Name | Name of the person carrying out the work | Primary field, searchable, required | Text |
| Hourly Rate | Base hourly rate for the person (e.g., £25, £30) | Editable, currency, required | Currency |
| Work Type | Type of job (e.g., Domestic, Commercial) | Option set, filterable | Choice |
| Applicable Tax | Tax applicable (e.g., AX, PAYE) | Lookup or option set, can be extended | Lookup/Choice |
| Notes | Additional information or comments | Optional, multiline | Text Area |

Dataverse Task Units Table

| Field | Details | Dataverse Table Characteristics | Field Type |
| --- | --- | --- | --- |
| Task Name | Name of the task (e.g., Electrical Wiring, Window Installation) | Primary field, searchable, required | Text |
| Work Type | Indicates if the task is domestic or commercial | Option set (Domestic, Commercial), filterable, required | Option set |
| Fix | Type of fix or repair associated with the task | Optional, can be used for categorization or filtering | Text or Option set |
| Gang | Indicates if the task requires a team (gang) or can be done individually | Optional, relevant for scheduling or resource allocation | Boolean or Option set |
| Unit (hrs/mins) | Unit of measure for the task duration, such as hours or minutes | Required for time tracking and cost calculations | Number (with unit selection) |

Dataverse Material Task Units

| Field | Details | Dataverse Table Characteristic | Field Type |
| --- | --- | --- | --- |
| Circuit Type | Lighting Circuit, Power Circuit | Name | Text |
| Task Unit | Switch, Pendant, Socket Outlet | Description | Text |
| Material | Switch Mechanism, Cable (m), Pendant Fitting, Ceiling Rose, Double Socket | Related Materials | Text/List |
| Quantity per Unit | 1, 5, 1, 1, 1, 10 | Quantities | Number/List |