



Enhancing Data Accuracy, Collection, and Reporting Through PowerApps and Power BI Integration

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Methodology:

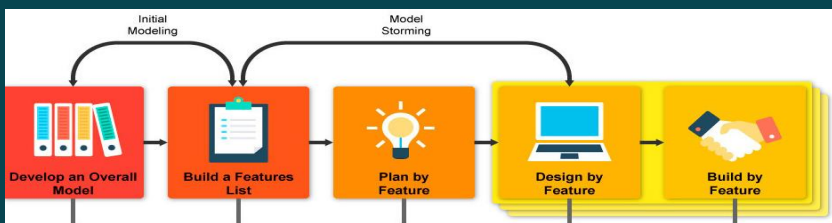
Research Philosophy : **Pragmatism**, focussing on practical outcomes, aligning with Agile and mixed methods.
Research Methodology: **Mixed**, Combining quantitative and qualitative research through literature review, observations and surveys allowing triangulation of findings.
Development Method: **Feature Driven Development**, iterative delivery utilising prototypes and feedback loops.

Project Outcomes:

Enhanced Data Accuracy: Significant reduction in data entry errors, using built-in validation protocols.
Improved Data Collection: Streamlined manual data catch
Effective Data Visualization: Power BI dashboards provided real-time, dynamic insights.
Successful Integration: integration of PowerApps with Dataverse ensured scalable and secure data storage.
Positive User Feedback: High levels of user satisfaction.

Background:

The project focuses on improving data accuracy, collection, and reporting within a business context.
The implementation of PowerApps resulted in a significant reduction in data entry errors, while the Power BI dashboards provided real-time insights that improved decision-making. User feedback was overwhelmingly positive, highlighting improved experience and reliability.



Project Aims:

Improve Data Accuracy. Minimise data entry errors for Improved Data Quality.
Improve Data Collection. Efficient capture of Manual Input.
Improved Reporting. Providing improved Data visualisation
Objectives:
POC to improve current data capture process.
Dataverse Integration with PowerApp for scalable and secure storage system.
Improved MI.
Solution Testing. Conducting thorough user testing and validation

```
WriteOff App (Settings)
Add data - New screen - Settings
Clear(singleCollection);
Set(ErrorCounter, 0);
Set(Display, 0);

If(DataCounter > 0, Set(ErrorCounter, ErrorCounter+1), Set(ErrorCounter, ErrorCounter));
//Data validation, setting error counter to 0, then +1 if any fields fail validation
If(ValidCheck > 0, Set(ErrorCounter, ErrorCounter+1), Set(ErrorCounter, ErrorCounter));
If(AmountCheck > 0, Set(ErrorCounter, ErrorCounter+1), Set(ErrorCounter, ErrorCounter));
If(ValidCheck > 0, Set(ErrorCounter, ErrorCounter+1), Set(ErrorCounter, ErrorCounter));
//No validation required for the DO's as there's no wrong option to select
If(IsBlank(SelectedText.Value) & "Select", Set(ErrorCounter, ErrorCounter+1), Set(ErrorCounter, ErrorCounter));
If(IsBlank(SelectedText.Value) & "Select", Set(ErrorCounter, ErrorCounter+1), Set(ErrorCounter, ErrorCounter));
//Additional validation to prevent select values entered for Team and Dept Values
If(ErrorCounter > 0, Set(Display, 1), Set(Display, 0));

collect(
singleCollection,
{
    crm2_dataofissue: DataCounter, selecteddate,
    crm2_vrn: OperUnitOut.Text,
    crm2_wrtipval: Value(Amount, Text),
    crm2_payableorderref: PosNumber, Text,
    crm2_deptaccountno: DeptDO, SelectedText.Value,
    crm2_team: nomco.SelectedText.Value,
    crm2_staffname: Text(StaffName),
    crm2_staffiam: Text(StaffEmail),
    crm2_dataofissueoff: Today()
});
//Collection of data for both input, and the variables set in the background for staff details.
//Errors clicking up display name, the actual table name including crm2s had to be called out
crm2_text: RemoveFormatting -> Find and replace

Team: Select
Save Entry
Commit Changes
```

References:

Key references include research on mixed methods (Creswell & Plano Clark) and Agile methodologies (Beck et al.), which supported the project's development. (Schneiderman) and (Norman) instrumental in shaping the Design process.

