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MS Teams Form

High-Level Design Document: Microsoft Power Apps Application - Teams Group Creation Workflow

Executive Summary

This document outlines the high-level design for a Microsoft Power Apps application designed to streamline the process of creating new Microsoft Teams groups. The app, developed by Katerina Chernevskaya, facilitates multi-step user input collection and validation, ensuring all necessary details are captured before initiating the Teams group formation.

Application Architecture Overview

The application is structured into a series of interconnected screens (Step 1 Screen, Step 2 Screen, Step 3 Screen, Step 4 Screen, Submit Screen) that guide users through a multi-step form for creating a new Teams group. Each screen focuses on collecting specific information and validating inputs before transitioning to the next step. The architecture is modular, with each screen handling its own UI components and interactions while leveraging shared data sources like SharePoint lists (Timeline collection).

Key Modules:

1. **Step Screens**: A series of manual layout containers (Step 1 Screen, Step 2 Screen, Step 3 Screen, Step 4 Screen) that present forms for collecting group details such as name, description, privacy settings, and team members.
2. **Submit Screen**: The final screen where users finalize their input before submitting the Teams group request to SharePoint.
3. **Thank you Screen**: Displays a confirmation message after successful submission or resubmission, offering users the option to initiate another

request.

Data Sources:

- **Timeline Collection** (SharePoint list): Stores all steps of the multi-step process for creating a Teams group.
- **_submission Collection** (Custom collection): Holds parameters and details submitted by users during the final step.

Data Model

The application utilizes SharePoint lists to manage the multi-step process:

1. **Timeline**: Contains items representing each step of the Teams group creation workflow. Each item likely includes fields for Step Name, Description, Privacy (Private/Public), and a reference to the next step in the sequence.
2. **_submission**: A custom collection that stores all submitted group details upon form submission. Fields include Title, Description, Kind, Requestor, ParticipantsText/Participants, WelcomeMessage, Channel1, Channel2, and Channel3.

Navigation and User Flow

The application employs a step-by-step navigation flow:

1. **Step 1 Screen**: Collects basic group information (name, description, privacy).
2. **Step 2 Screen**: Gathers team member details using an Office365Users dataset.
3. **Step 3 Screen**: Reviews and confirms the gathered data before proceeding to Step 4.
4. **Step 4 Screen**: Finalizes group submission parameters, including channel names.
5. **Submit Screen**: Validates inputs and submits all details to SharePoint for Teams group creation.
6. **Thank you Screen**: Confirms completion or offers resubmission options.

Custom Logic and Key Interactions

- **OnStart Functionality** (App.fx.yaml): Initializes the Timeline collection with predefined steps, setting a creation timestamp in var_created for metadata tracking.
- **Navigation Logic**: Uses OnSelect functions on buttons to navigate between screens based on current active screen names.
- **Data Validation**: Enforces character limits and non-empty conditions for input fields, providing real-time feedback through dynamic label updates.
- **Patch() Functionality**: Updates SharePoint list entries with new group details upon successful form submission from the Submit Screen.

Integration Points

The application integrates with Microsoft Teams via SharePoint lists:

1. **SharePoint Lists**: Stores both process steps and submitted group details, serving as the backbone for data persistence and retrieval.
2. **Office365Users Dataset**: Provides a dynamic list of users for selection in team member fields during Step 2.

Special Features or Business Rules

- **Multi-step Form**: Ensures all necessary information is collected sequentially, preventing premature group creation.
- **Real-time Validation**: Dynamically updates input fields with character limits and non-empty conditions to guide users through the process correctly.
- **Conditional Logic**: Uses Switch statements in Step 3 Screen to dynamically change button text and navigation targets based on the current active screen, maintaining a consistent flow throughout the application.

Component Summary Table

File Name	Responsibilities
App.fx.yaml	Initialization script for setting up data sources (Timeline collection) and metadata (_created variable).
Step 1 Screen.fx.yaml	Collects basic group information, including name, description, privacy settings.

Step 2 Screen.fx.yaml	Gathers team member details using an Office365Users dataset.
Step 3 Screen.fx.yaml	Reviews and confirms data from previous steps before proceeding to the final submission step.
Submit Screen.fx.yaml	Finalizes group submission parameters, including channel names, and updates SharePoint with new group details.
Thank you Screen.fx.yaml	Confirms completion or offers resubmission options after successful form submission.

This High-Level Design document provides a comprehensive overview of the Microsoft Power Apps application designed for streamlining Teams group creation processes, ensuring all necessary steps and interactions are accounted for in its architecture and functionality.