MICHIGAN STATE UNIVERSITY

Project Plan Presentation

Agentic Concierge

The Capstone Experience

Team WK Kellogg Co

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From Students…
…to Professionals

Project Sponsor Overview

- Headquarted in Battle Creek, Michigan, operating primarily across the United States and Canada
- WK Kellogg produces ready-to-eat cereals in North America, managing iconic brands like Frosted Flakes, Special K and Rice Krispies
- WK Kellogg became an independent company in 2023 following the North American spin-off



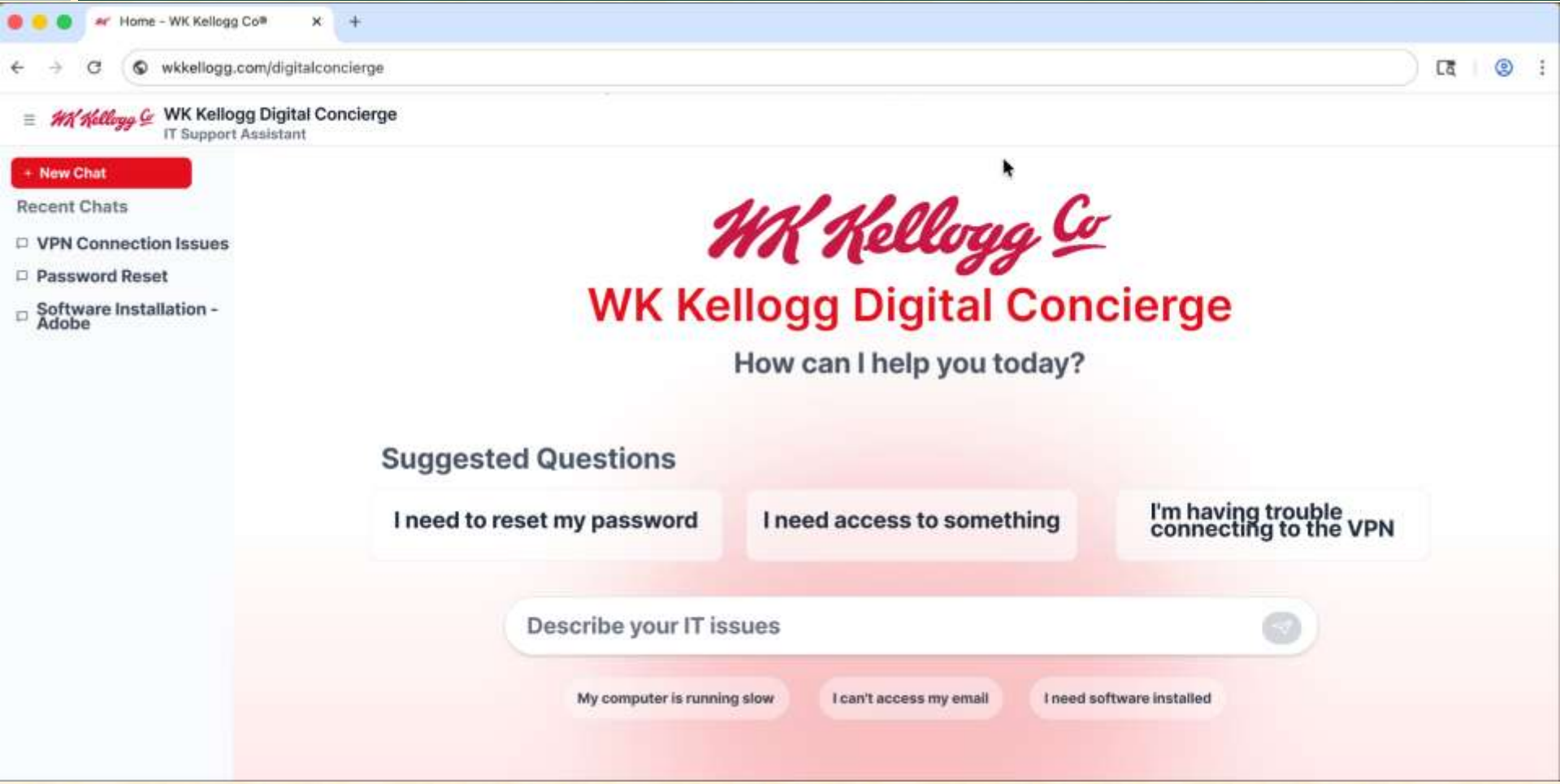
Project Functional Specifications

- Agentic Concierge is a chat-based internal support assistant that guides users using approved support documents and similar past incidents
- It reduces time lost searching across fragmented documentation and lowers load on the service desk and a small expert team
- Internal technology users will describe their issues in chat and receive step by step guidance with most relevant documentation
- If not resolved, the system captures the relevant details and generates a structured incident report for ServiceNow routing

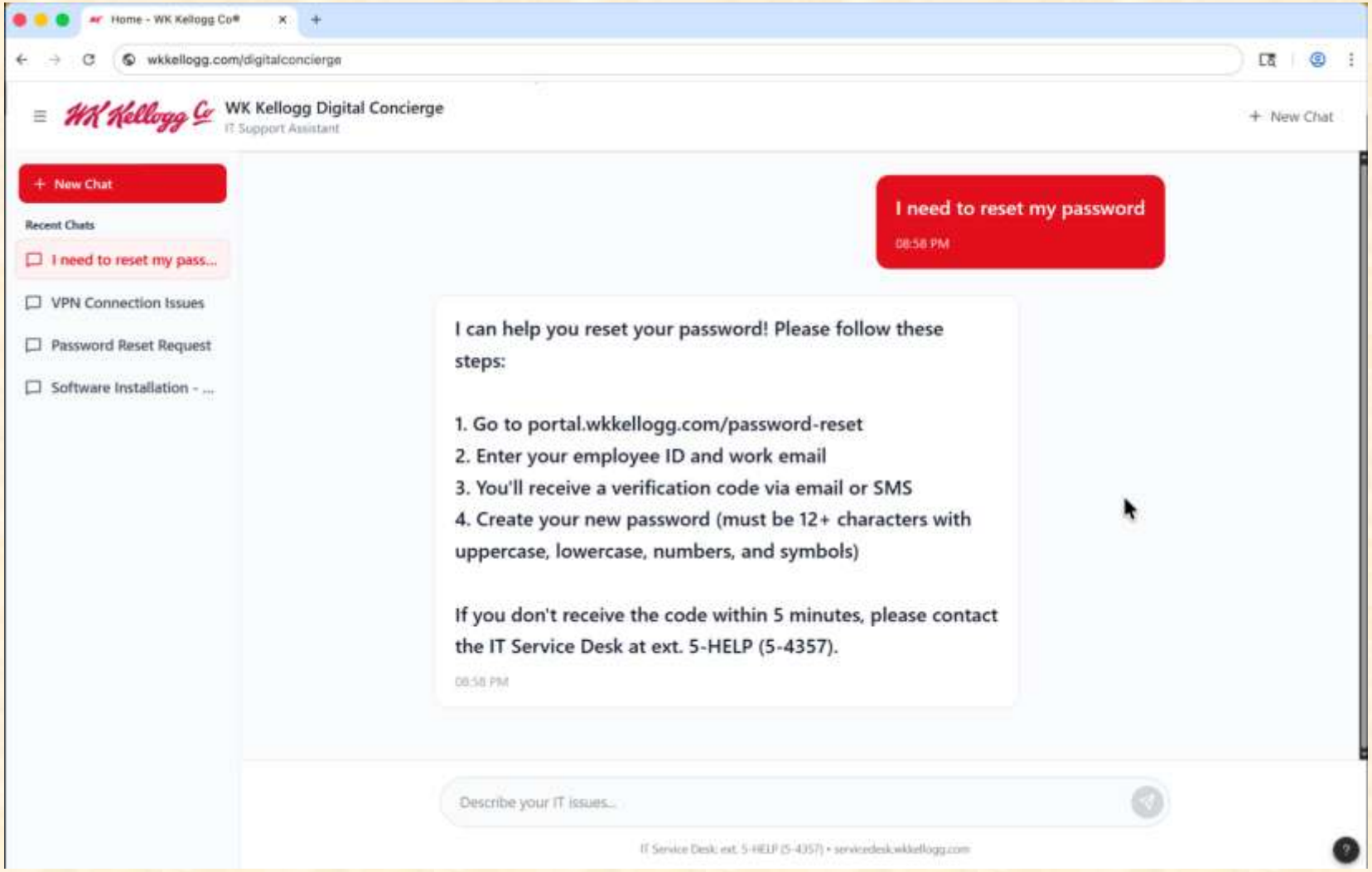
Project Design Specifications

- Deliver an AI chatbot that serves as a first-line IT helpdesk for WK Kellogg employees, handling common issues such as password resets, VPN connectivity, Wifi problems, etc
- The chatbot combines natural language input with suggested questions and quick-action prompts, helping users clearly articulate issues
- Desktop and mobile mockups share a unified visual language and interaction model, ensuring all employees receive the same intuitive experience

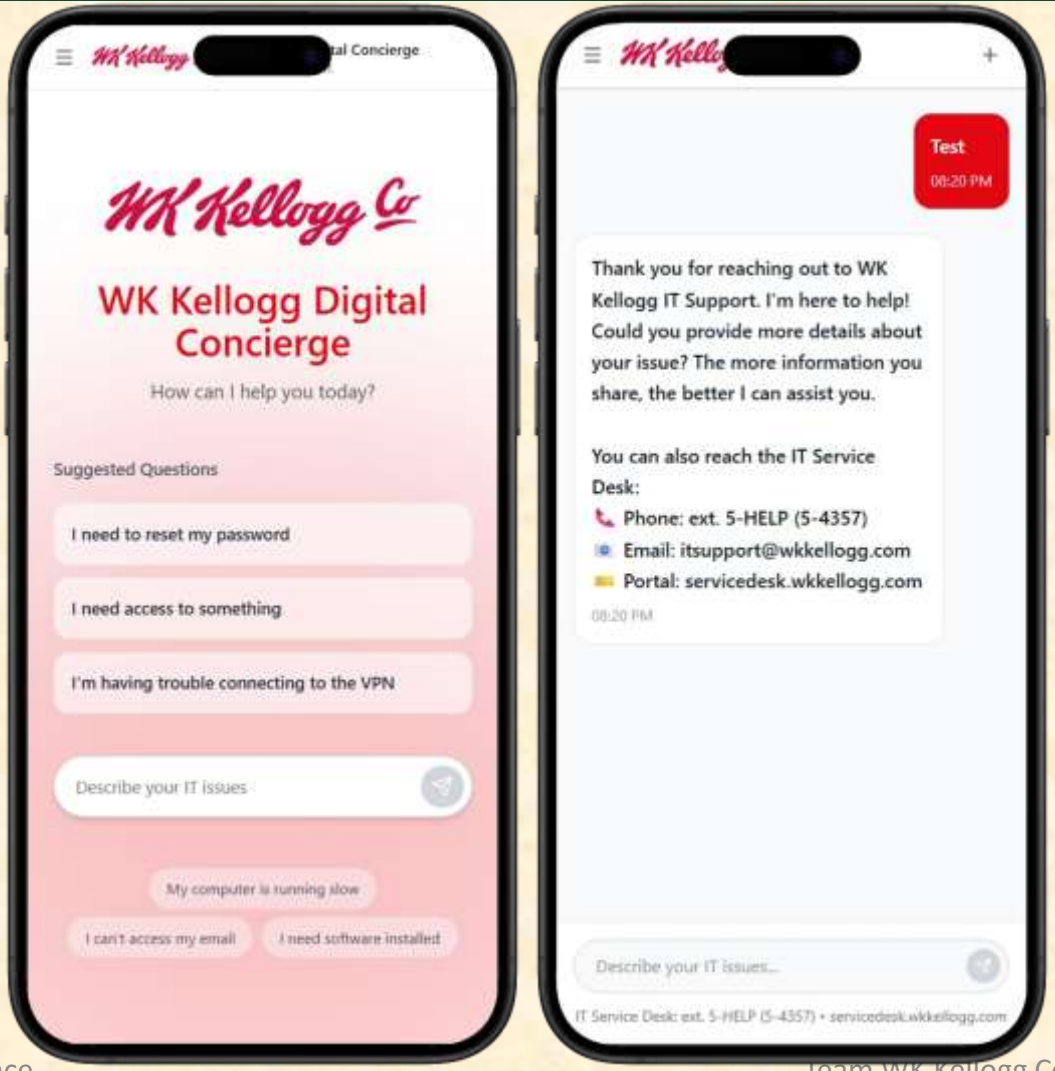
Screen Mockup: Welcome



Screen Mockup: Chat



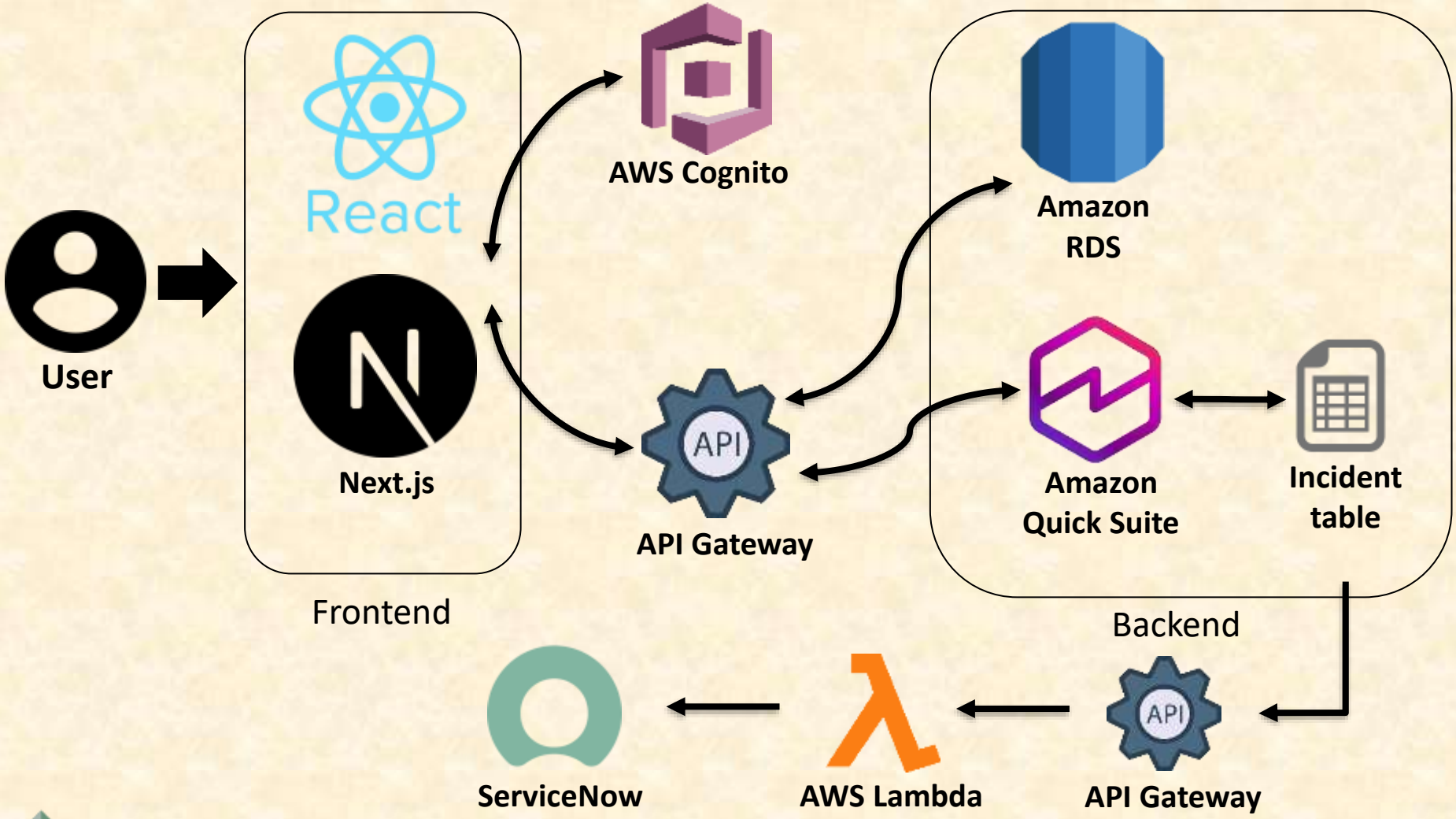
Screen Mockup: Phone



Project Technical Specifications

- React & NextJS
  - Frontend UI
- User Authentication
  - Profile tracking
  - Conversation History
- Relational Database
  - Maps authenticated users to Quicksuite profile
- Agent Manager
  - Hosts agent and ingested documents
- API Layer
  - Communication between systems
- Ticket Manager
  - Houses completed sessions and unresolved incidents

Project System Architecture



Project System Components

- Software Platforms / Technologies
  - Amazon QuickSuite
  - API Gateway
  - ServiceNow
  - AWS S3
  - AWS Lambda
  - Amazon Cognito
  - Amazon RDS

Project Risks

- Risk 1: Lack of required AWS access
  - No access to Kellogg's internal AWS system
  - Work with Kellogg to provision admin access
- Risk 2: Resolving Kellogg authentication
  - To enable user chat history, we need an AWS IAM but the permissions for this to work with Kellogg's own internal IAM system do not currently exist
  - Work with Kellogg cybersecurity to determine how to use them in parallel
- Risk 3: ServiceNow handoff requirements are unclear
  - Ticket format is unknown, IT users may need additional instructions
  - Ask for 3-5 real example incidents, use those for creating a draft incident template, do quick weekly check-ins with service desk QA to see if data matches, and keep product handoff simple
- Risk 4: Quicksuite does not expose the chat events to an endpoint
  - Our current system architecture depends on receiving chat events through an endpoint. Amazon Quicksuite does not support this capability
  - Validate what we can capture, if missing determine another way to implement chatting capabilities within our app

Questions?

