Vision Statement 1.0.0

Team Name: ***War Room Minions***
Product Name: ***DermIQ***

Team Info

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Industry Partnership Info

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Problem Statement

What is the problem? Who has the problem?
- Lack of access to dermatology services puts vulnerable populations at risk of missing diagnosis of serious skin conditions like melanoma
- Affected populations include:
  - People in war zones or shelters
  - Socially disadvantaged groups
  - Those in remote locations without nearby medical care
  - Long wait times and high costs prohibit timely skin assessment even in developed nations

Importance

Why is the problem important?
- Early diagnosis of skin cancer is critical for positive outcomes and survival, but lack of access to screening prevents detection at treatable stages.
- Without convenient, affordable skin checks, cancers like melanoma can advance to later stages before being caught, greatly reducing treatment options and chances of remission.
- Enabling access to skin cancer screening has the potential to save lives through early intervention, especially for underserved groups missing this care.

Current Solutions

How is the problem solved today?

- Currently, access to skin cancer screening requires in-person appointments with dermatologists or clinics, which can be costly, time consuming, and inaccessible for many.
- Some solutions involve public screening events, mobile clinics, or telehealth appointments, but availability is limited and sporadic.
- Doctors may conduct visual inspections of skin during routine physicals, but specialized dermatological exams are not regularly available to underserved groups.

Outcome Statement

What are the desired results once the system is implemented?

- Increased early detection of melanoma and other skin problems through expanded access to screening. This would allow more cases to be caught at treatable stages.
- Quicker intervention and treatment for identified cases of skin cancer through prompt risk analysis and recommendations.
- Improved convenience and affordability of skin checks through on-demand digital screening, reducing barriers to access.

Technologies & Tools

What technologies and tools will we use?

- Expo SDK/CLI - For building and deploying the cross-platform iOS/Android app
- React Native - UI framework to build mobile app interface and components
- Expo Router v2 - For navigation and routing between screens in the app
- TensorFlow/PyTorch - Machine learning frameworks to develop and run skin cancer detection models
- Llama 2 - Pre-trained GPT model used as baseline for medical GPT creation
- Hugging Face - Pre-trained models and model hosting to serve ML predictions
- AWS - Services for hosting backend infrastructure
- Node.js/Python - Server environment to handle requests and integrate with ML

Initial Project Milestones

What are the significant stages that will happen to take off our product? How we plan to get there?

Id	Top Line Milestone	How We Plan to Achieve
1	Define product requirements	Outline MVP scope and user flows on Jira (fill backlog)
2	Prototype core app	Design key mobile app screens and UX in Figma.
3	Design a system	Configure cloud env, CI/CD Pipeline, and establish a workflow .
4	Develop OAuth flow	Implement sign up/login screens and backend auth.
5	Capture and upload images	Add camera integration and image uploads, save to user profile