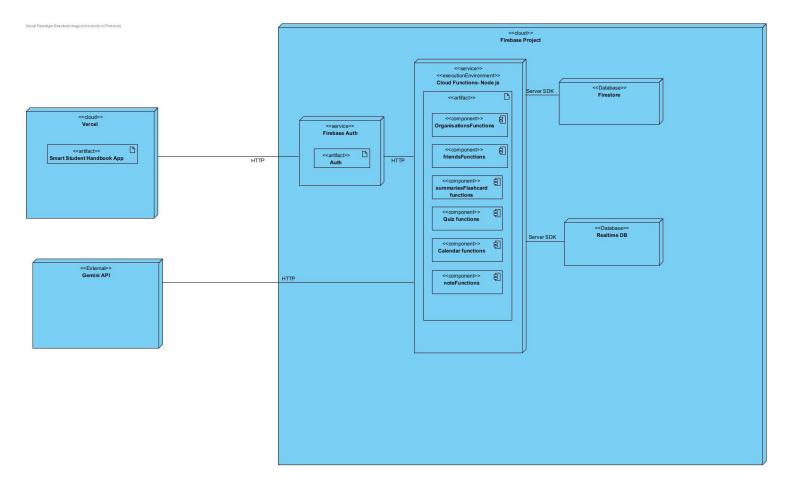# DEPLOYMENT MODEL

The Smart Student Handbook is a web application deployed via Firebase onto the internet. The system follows three main architectural layers: a component based frontend built with Next.js, a layered backend implemented through Firebase Cloud Functions and external AI services (Gemini). Firebase Cloud Functions are deployed on the Firebase cloud and are invoked by clients after successful authentication. Certain backend functions integrate with the Gemini API to provide AI powered features such as flashcard generation, note summarization and quiz creation. The entire deployment is cloud-based with our user data stored and managed in Firebase Firestore and the Realtime Database.