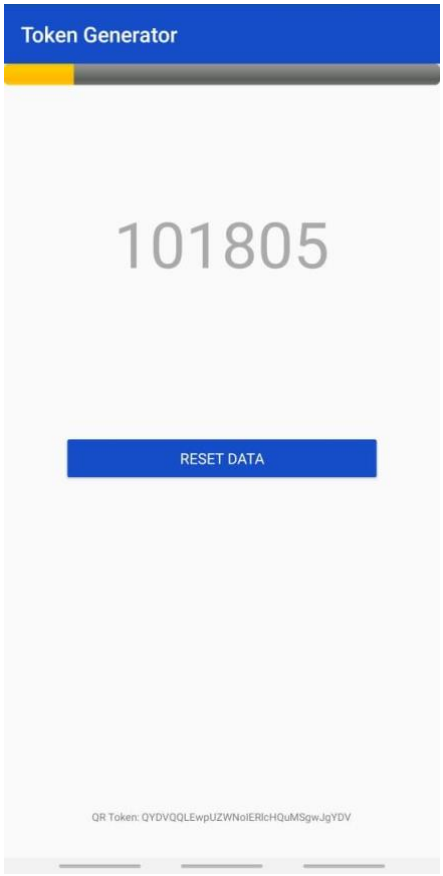
Description:

The application in question, developed for the Android platform, consists of a six-digit token generation system generated in real time from the reading of a QR Code:

The screen has two buttons:
1. “GET KEY” button: Opens the camera for reading the QR Code.
2. “RESET DATA” button: Cancels the generation of running tokens and erases the Key read from the QR Code.

When reading the QR Code, the returned Key is displayed at the bottom of the screen, the “GET KEY” button is disabled and hidden from the interface and the timed generation of the six-digit code begins.



The remaining time of availability of the code until the generation of a new one is 30 seconds and the progress of this time is displayed by the progress bar located at the top of the interface. When approaching the end of the "useful life" of the code displayed on the screen, the code has its color changed to red, making it even clearer that its usage time is coming to an end.

After 30 seconds a new code is generated.
If the user closes the application without pressing the “RESET DATA” button, the key read from the QR Code is stored in the device's shared preferences and as soon as the application is restarted, the code generation is automatically triggered.
When pressing the “RESET DATA” button the application returns to its initial stage.

Android Studio Requirenments:

NDK – Native Development Kit.
CMake SDK Tool.

Demo vídeo:

https://drive.google.com/file/d/1epGGBMiJ2Us4T5abZ7wr0HIPPDqGqx8H/view?usp=sharing