# Process Documentation - Number System Converter APK

**CAT 1 GROUP WORK**

**MEMBERS:**

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## 1. Project Overview

The Number System Converter is a hybrid mobile application developed using HTML, CSS, and JavaScript. The project was created and tested in Monaca, which is a cloud-based mobile app development environment, and then built into an Android APK.

## 2. Purpose of the App

The app allows users to easily convert numbers between different number systems: Binary, Octal, Decimal, and Hexadecimal. Its goal is to provide an educational tool that demonstrates base conversion for students and enthusiasts.

## 3. Development Process

1. Planning & Design: Defined the core functionality, user interface layout, and required number system conversions.  
2. Implementation: Wrote the front-end code using HTML for structure, CSS for styling, and JavaScript for logic.  
3. Testing in Monaca: Uploaded files to Monaca IDE, previewed and debugged the application in Monaca's live testing environment.  
4. APK Build: Used Monaca's build service to compile the project into an APK suitable for Android devices.

## 4. Tools and Technologies

• HTML5, CSS3, JavaScript (core app)  
• Monaca IDE for cloud-based development and testing  
• Cordova architecture for packaging into APK

## 5. Testing & Deployment

The application was tested on both the Monaca simulator and an actual Android and IOS devices to ensure correctness of number conversions, UI responsiveness, and performance. After successful testing, the APK was built and downloaded for installation.

## 6. Conclusion

The process demonstrates the workflow of creating a cross-platform mobile application using web technologies and cloud-based build services. The result is a functional Android and IOS application that can be shared with users for educational purposes.