

**LAPORAN HASIL PRAKTIKUM  
PEMROGRAMAN WEB DAN MOBILE I**



**Nama : Oscar Oktorian Almando**  
**NIM : 193020503037**  
**Kelas : A**  
**Modul : V (React Native)**

**JURUSAN/PROGRAM STUDI TEKNIK INFORMATIKA**  
**FAKULTAS TEKNIK**  
**UNIVERSITAS PALANGKA RAYA**  
**2021**

# **BAB I**

## **LANDASAN TEORI**

### **1.1 Tujuan**

- 1.1.1 Mahasiswa mampu melakukan instalasi React Native pada perangkat laptop atau PC-nya masing-masing.
- 1.1.2 Mahasiswa mampu membuat program sederhana menggunakan React Native.

### **1.2 Landasan Teori**

#### **1.2.1 Apa itu React Native**

React Native adalah sebuah framework JavaScript yang digunakan untuk mengembangkan aplikasi mobile secara multi-platform (Benefita 2021). React Native diciptakan oleh Facebook pada tahun 2015 dan bersifat *open source*. Kode yang ditulis menggunakan framework ini dapat digunakan untuk aplikasi di berbagai platform mobile (iOS dan Android).

#### **1.2.2 Kelebihan React Native**

##### **a) Instalasi Lebih Mudah dengan Package Installer**

React Native menyediakan package installer (*Node Package Installer (NPM)*) untuk menginstal React Native hanya dengan memasukkan perintah pada Command Prompt tanpa harus mendownload secara eksternal dan menginstalnya secara manual.

##### **b) Design UI yang Modular**

Design UI yang modular memungkinkan seorang programmer merakit blok-blok penyusun UI untuk aplikais mobile. Sehingga, hal ini akan mempermudah seorang programmer dalam mengembangkan sebuah aplikasi.

##### **c) Menyediakan Komponen Siap Pakai**

React Native menyediakan komponen siap pakai yang telah dibuat oleh developer lain sehingga dapat mempersingkat waktu pengembangan aplikasi.

**d) Menghemat Waktu Pengembangan**

React Native bersifat cross-platform, sehingga programmer tidak perlu membuat codebase yang berbeda untuk setiap platform yang akan digunakan. Cukup dengan satu codebase sebuah aplikasi dapat digunakan di beberapa platform.

**e) Mendukung Penggunaan Library dari Pihak Ketiga**

React Native memungkinkan untuk menghubungkan plugin dari pihak ketiga dengan aplikasi yang dibuat. Plugin-plugin tersebut memungkinkan seorang programmer untuk menambahkan berbagai komponen UI seperti icons, logo loading, dan lainnya.

**f) Fast Refresh**

React Native dapat langsung menampilkan kode yang telah dituliskan dan pada setiap perubahan yang ada pada kode.

**g) Meningkatkan Performa Aplikasi**

React Native menggunakan GPU (Graphic Processing Unit), sehingga performa aplikasi mobile memungkinkan untuk jadi lebih cepat.

### **1.2.3 Kekurangan React Native**

**a) Membutuhkan Basic Knowledge yang Cukup Matang**

Seseorang yang langsung menggunakan React Native tanpa pengetahuan JavaScript pasti akan kebingungan dalam menggunakan atau membuat aplikasi melalui framework ini.

**b) Terlalu Sering Update**

Jika menggunakan React Native, seorang programmer harus siap dengan banyaknya update React Native. Jika tidak melakukan update, maka kode yang ditulis pada versi sebelumnya kemungkinan tidak kompatibel di React Native versi terbaru.

**c) Keamanan Masih Rawan**

Adanya fitur bridging pada React Native, yang mana melibatkan pihak ketiga akan membuat celah pada perangkat yang digunakan. Hal ini sangat berisiko tercurinya data sensitif yang berkaitan dengan privasi.

## **BAB II**

### **PEMBAHASAN**

Tugas pada modul 5 ini adalah untuk melakukan instalasi komponen yang diperlukan untuk menjalankan React Native berdasarkan instruksi yang telah ditentukan (Rasupe 2019). Berikut ini langkah-langkah yang dilakukan dalam penginstalan komponen-komponen yang diperlukan tersebut.

#### **2.1 Menginstall Chocolatey**

Untuk menginstal Chocolatey, hal pertama yang perlu dilakukan adalah dengan membuka Windows Power Shell dalam mode Administrator.

Dengan melakukan sedikit konfigurasi untuk mengubah *Execution Policy*, langkah selanjutnya memasukkan perintah sesuai pada instruksi yang diberikan seperti pada perintah di bawah ini.

```
@ "%SystemRoot%\System32\WindowsPowerShell\v1.0\powershell.exe" -  
NoProfile -InputFormat None -ExecutionPolicy Bypass -Command "iex  
((New-Object  
System.Net.WebClient).DownloadString('https://chocolatey.org/install.ps1'  
)))" && SET "PATH=%PATH%;%ALLUSERSPROFILE%\chocolatey\bin"
```

```
Administrator: Windows PowerShell (x86)
you to the security risks described in the about_Execution_Policies help topic at
https://go.microsoft.com/fwlink/?LinkID=135170. Do you want to change the execution policy?
[Y] Yes [A] Yes to All [N] No [L] No to All [S] Suspend [?] Help (default is "N"): Y
PS C:\WINDOWS\system32> Get-ExecutionPolicy
AllSigned
PS C:\WINDOWS\system32> Set-ExecutionPolicy Bypass -Scope Process -Force; [System.Net.ServicePointManager]::SecurityProt
ocol = [System.Net.ServicePointManager]::SecurityProtocol -bor 3072; iex ((New-Object System.Net.WebClient).DownloadStri
ng('https://chocolatey.org/install.ps1'))
Forcing web requests to allow TLS v1.2 (Required for requests to Chocolatey.org)
Getting latest version of the Chocolatey package for download.
Not using proxy.
Getting chocolatey from https://community.chocolatey.org/api/v2/package/chocolatey/0.10.15.
Downloading https://community.chocolatey.org/api/v2/package/chocolatey/0.10.15 to C:\Users\OSCAR\AppData\Local\Temp\choc
olately\chocoInstall\chocolatey.zip
Not using proxy.
Extracting C:\Users\OSCAR\AppData\Local\Temp\chocolatey\chocoInstall\chocolatey.zip to C:\Users\OSCAR\AppData\Local\Temp
\chocolatey\chocoInstall
Installing Chocolatey on the local machine
Creating ChocolateyInstall as an environment variable (targeting 'Machine')
Setting ChocolateyInstall to 'C:\ProgramData\chocolatey'
WARNING: It's very likely you will need to close and reopen your shell
before you can use choco.
Restricting write permissions to Administrators
We are setting up the Chocolatey package repository.
The packages themselves go to 'C:\ProgramData\chocolatey\lib'
(i.e. C:\ProgramData\chocolatey\lib\yourPackageName).
A shim file for the command line goes to 'C:\ProgramData\chocolatey\bin'
and points to an executable in 'C:\ProgramData\chocolatey\lib\yourPackageName'.
Creating chocolatey folders if they do not already exist.
WARNING: You can safely ignore errors related to missing log files when
upgrading from a version of Chocolatey less than 0.9.9.
'Batch file could not be found' is also safe to ignore.
'The system cannot find the file specified' - also safe.
chocolatey.nupkg file not installed in lib.
Attempting to locate it from bootstrapper.
PATH environment variable does not have C:\ProgramData\chocolatey\bin in it. Adding...
WARNING: Not setting tab completion: Profile file does not exist at
'C:\Users\OSCAR\Documents\WindowsPowerShell\Microsoft.PowerShell_profile.ps1'.
Chocolatey (choco.exe) is now ready.
You can call choco from anywhere, command line or powershell by typing choco.
Run choco /? for a list of functions.
```

**Gambar 2. 1** Proses Install Chocolatey.

```
Administrator: Windows PowerShell (x86)
Chocolatey v0.10.15
PS C:\WINDOWS\system32> choco -whatif
Chocolatey v0.10.15
PS C:\WINDOWS\system32>
```

**Gambar 2. 2** Chocolatey berhasil diinstal.

## 2.2 Install JDK, Node.JS dan Python

Dengan menggunakan *chocolatey* yang telah diinstal, masukkan perintah yang ditentukan untuk menginstal JDK, Node.JS dan Python melalui Windows Power Shell.

```
Administrator: Windows PowerShell (x86)
Chocolatey v0.10.15
PS C:\WINDOWS\system32> choco -whatif
Chocolatey v0.10.15
PS C:\WINDOWS\system32> choco install -y nodejs.install python2 jdk8
Chocolatey v0.10.15
Installing the following packages:
nodejs.install;python2;jdk8
By installing you accept licenses for the packages.
Progress: Downloading nodejs.install 16.1.0... 64%
```

**Gambar 2. 3** Proses penginstalan JDK, Node.JS dan Python.

```
Administrator: Windows PowerShell (x86)
PS C:\WINDOWS\system32> choco install -y nodejs.install python2 jdk8
Chocolatey v0.10.15
Installing the following packages:
nodejs.install;python2;jdk8
By installing you accept licenses for the packages.
Progress: Downloading nodejs.install 16.1.0... 100%

nodejs.install v16.1.0 [Approved]
nodejs.install package files install completed. Performing other installation steps.
Installing 64-bit version
Installing nodejs.install...
nodejs.install has been installed.
nodejs.install may be able to be automatically uninstalled.
Environment vars (like PATH) have changed. Close/reopen your shell to
see the changes (or in powershell/cmd.exe just type 'refreshenv').
The install of nodejs.install was successful.
Software installed as 'msi'. Install location is likely default.
Progress: Downloading python2 2.7.18... 100%

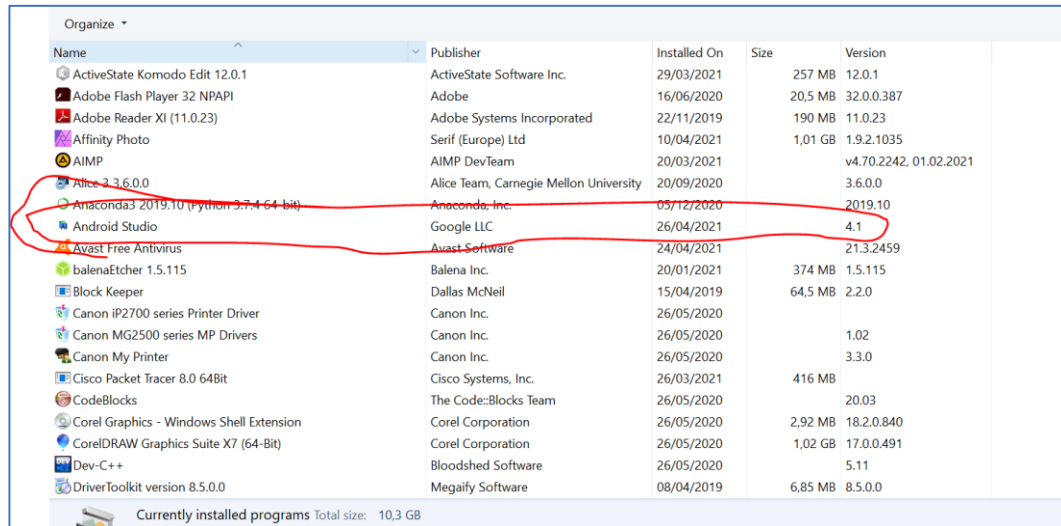
python2 v2.7.18 [Approved]
python2 package files install completed. Performing other installation steps.
Installing 64-bit python2...
python2 has been installed.
Installed to 'C:\Python27'
Adding C:\Python27 to PATH if needed
python2 may be able to be automatically uninstalled.
Environment vars (like PATH) have changed. Close/reopen your shell to
see the changes (or in powershell/cmd.exe just type 'refreshenv').
The install of python2 was successful.
Software installed as 'msi'. Install location is likely default.
Progress: Downloading jdk8 8.0.211... 100%

jdk8 v8.0.211 [Approved]
jdk8 package files install completed. Performing other installation steps.
Downloading JDK from https://java1.oracle.com/webapps/download/GetFile/1.8.0_211-b12/478a62b7d4e34b78b671c754eaa38ab/windows-1586/jdk-8u211-windows-x64.exe
Installing jdk8...
jdk8 has been installed.
PATH environment variable does not have C:\Program Files\Java\jdk1.8.0_211\bin in it. Adding...
jdk8 may be able to be automatically uninstalled.
Environment vars (like PATH) have changed. Close/reopen your shell to
see the changes (or in powershell/cmd.exe just type 'refreshenv').
The install of jdk8 was successful.
Software installed to 'C:\Program Files\Java\jdk1.8.0_211'
```

**Gambar 2. 4** Penginstalan JDK, Node.JS dan Python telah selesai dilakukan.

## 2.3 Install Andoid Studio

Pada saat praktikum ini dilakukan, aplikasi Android Studio telah diinstal pada perangkat.



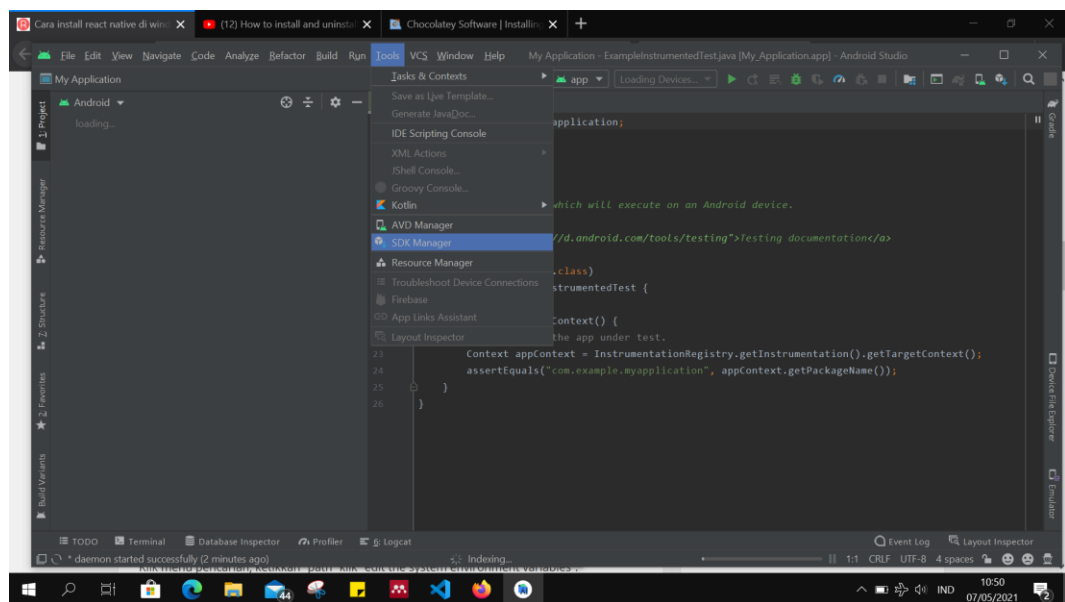
Name	Publisher	Installed On	Size	Version
ActiveState Komodo Edit 12.0.1	ActiveState Software Inc.	29/03/2021	257 MB	12.0.1
Adobe Flash Player 32 NPAPI	Adobe	16/06/2020	20,5 MB	32.0.0.387
Adobe Reader XI (11.0.23)	Adobe Systems Incorporated	22/11/2019	190 MB	11.0.23
Affinity Photo	Serif (Europe) Ltd	10/04/2021	1,01 GB	1.9.2.1035
AIMP	AIMP DevTeam	20/03/2021		v4.70.2242, 01.02.2021
Alice 3 3.6.0.0	Alice Team, Carnegie Mellon University	20/09/2020		3.6.0.0
Android Studio	Google LLC	26/04/2021		4.1
Avast Free Antivirus	Avast Software	24/04/2021		21.3.2459
BalenaEtcher 1.5.115	Balena Inc.	20/01/2021	374 MB	1.5.115
Block Keeper	Dallas McNeil	15/04/2019	64,5 MB	2.2.0
Canon iP2700 series Printer Driver	Canon Inc.	26/05/2020		
Canon MG2500 series MP Drivers	Canon Inc.	26/05/2020		1.02
Canon My Printer	Canon Inc.	26/05/2020		3.3.0
Cisco Packet Tracer 8.0 64Bit	Cisco Systems, Inc.	26/03/2021	416 MB	
CodeBlocks	The Code::Blocks Team	26/05/2020		20.03
Corel Graphics - Windows Shell Extension	Corel Corporation	26/05/2020	2,92 MB	18.2.0.840
CorelDRAW Graphics Suite X7 (64-Bit)	Corel Corporation	26/05/2020	1,02 GB	17.0.0.491
Dev-C++	Bloodshed Software	26/05/2020		5.11
DriverToolkit version 8.5.0.0	Megaify Software	08/04/2019	6,85 MB	8.5.0.0

Currently installed programs Total size: 10.3 GB

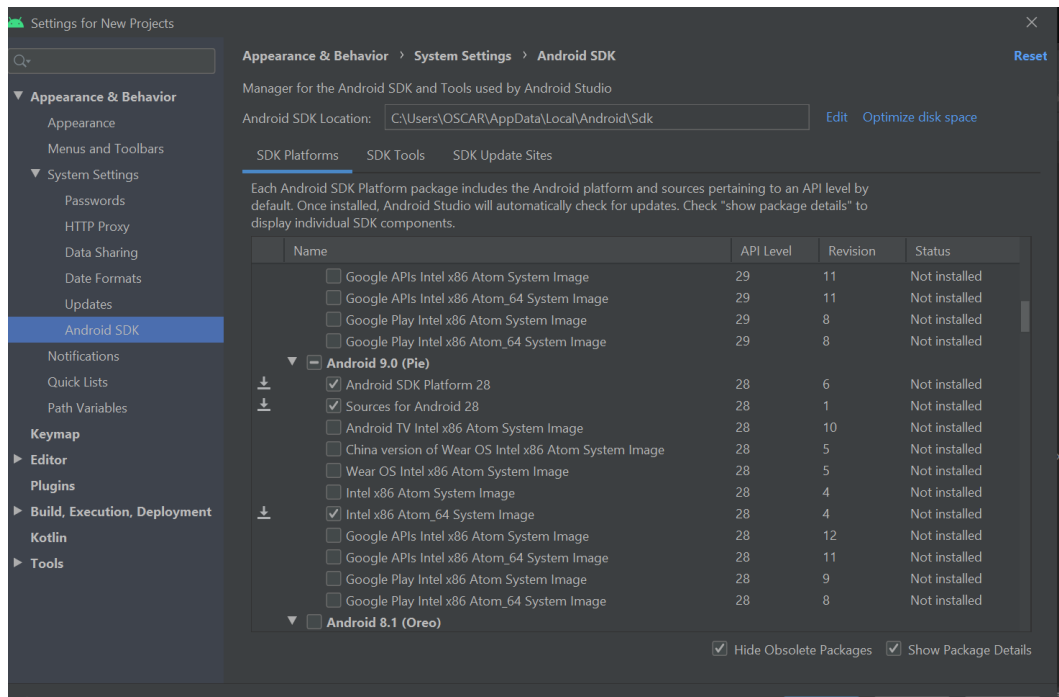
**Gambar 2. 5** Aplikasi Android Studio telah diinstal.

## 2.4 Install Android SDK

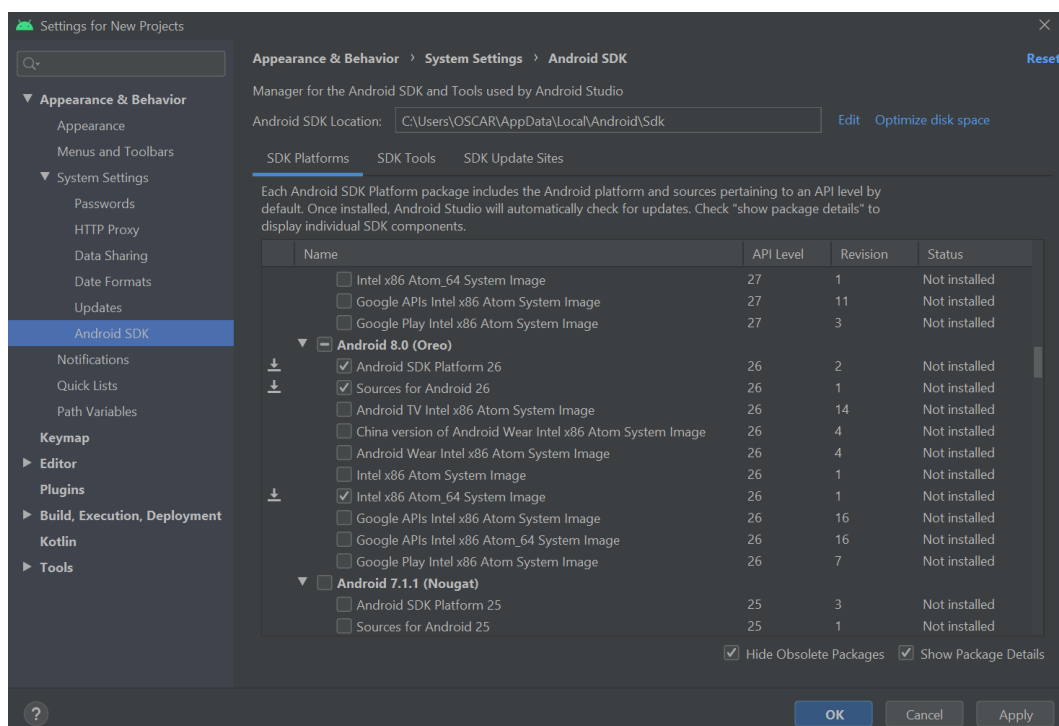
Pada bagian ini, akan dilakukan penginstalan package tambahan yang telah ditentukan.



**Gambar 2. 6** SDK Manager.

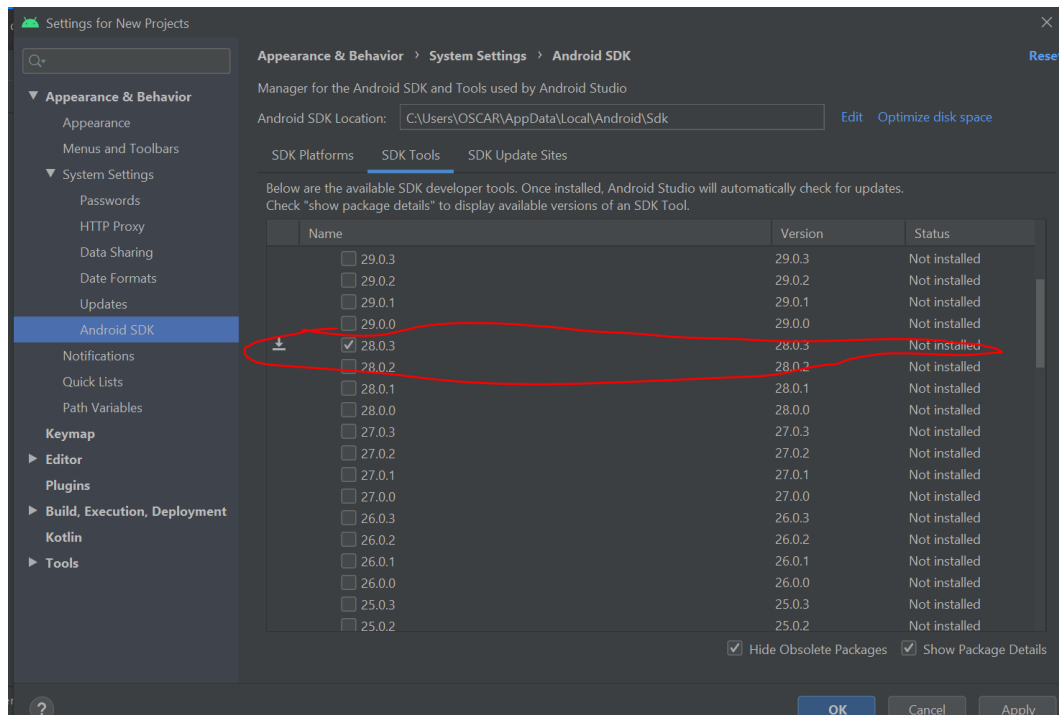


**Gambar 2. 7** SDK Manager Android 9.0.

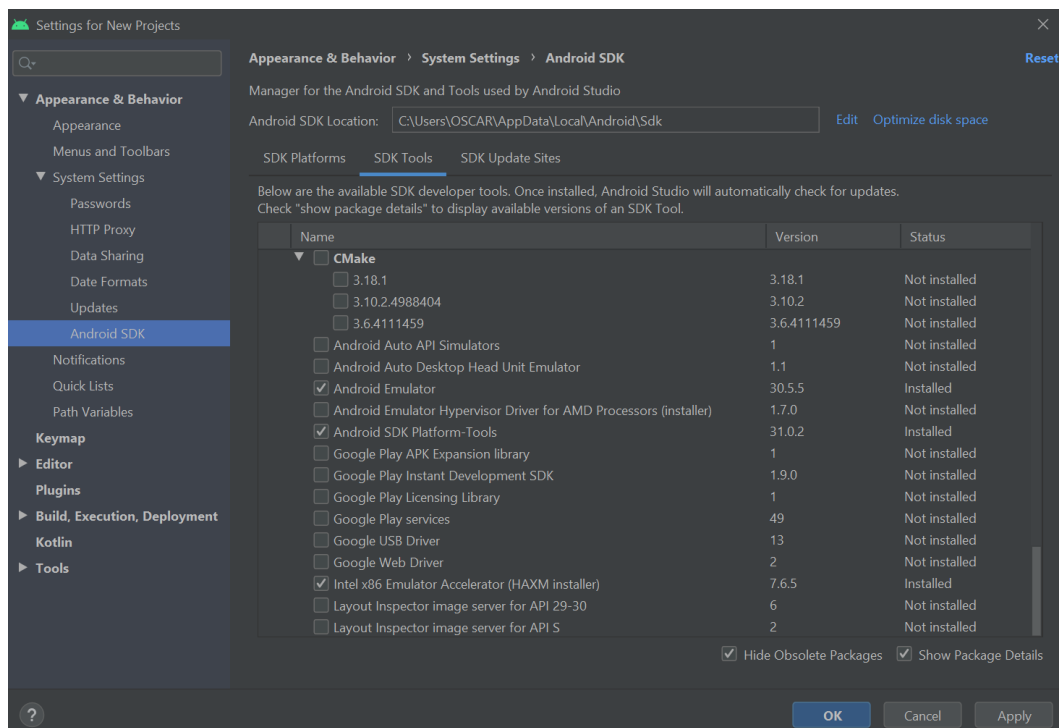


**Gambar 2. 8** SDK Manager Android 8.0.

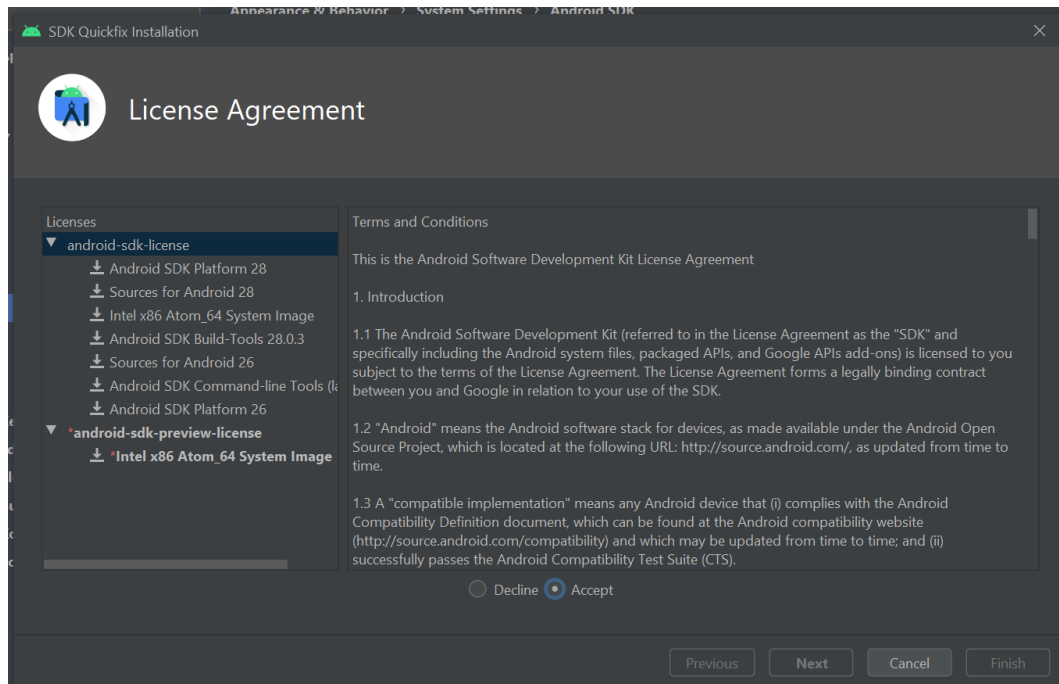




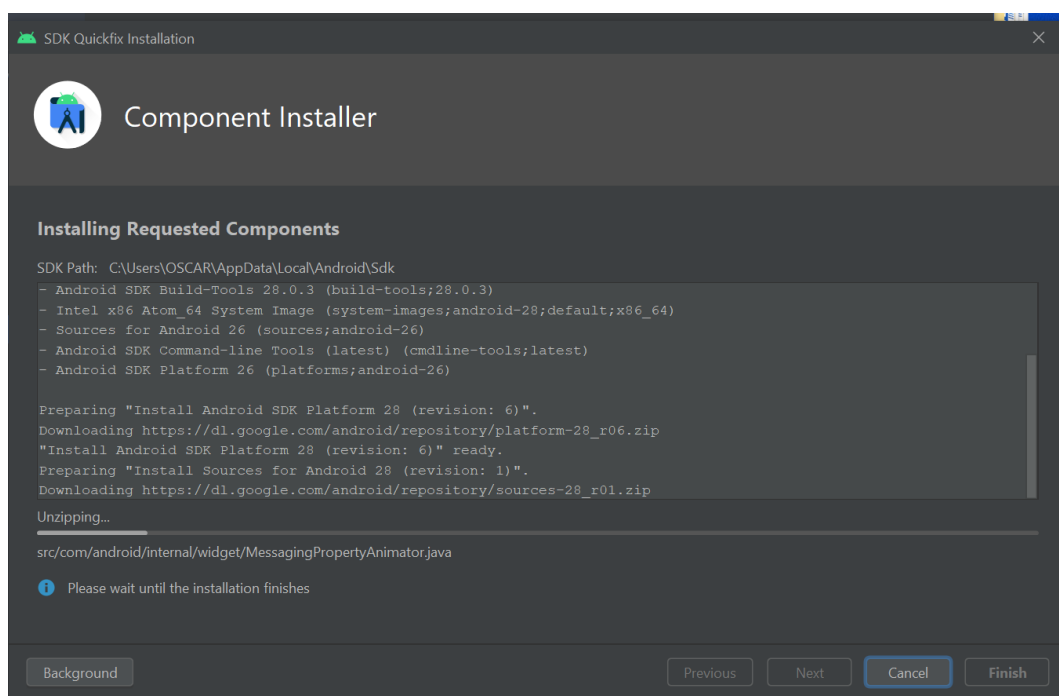
**Gambar 2. 9** SDK Tool 28.0.3.



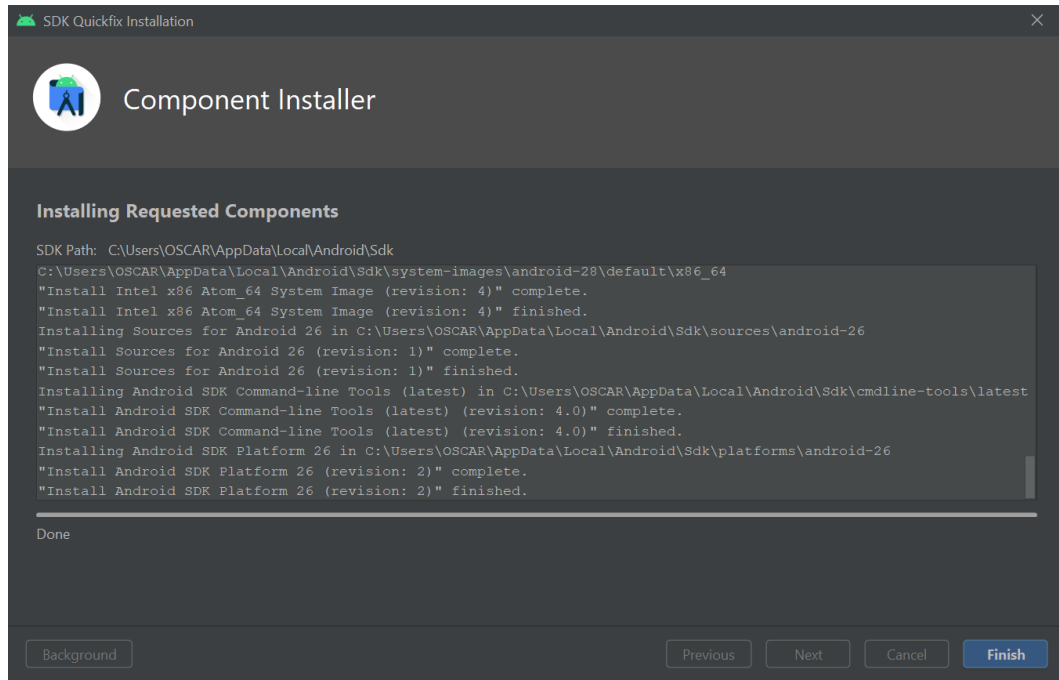
**Gambar 2. 10** SDK Tools Andoid.



**Gambar 2. 11** Liscense agreement sebelum menginstall.

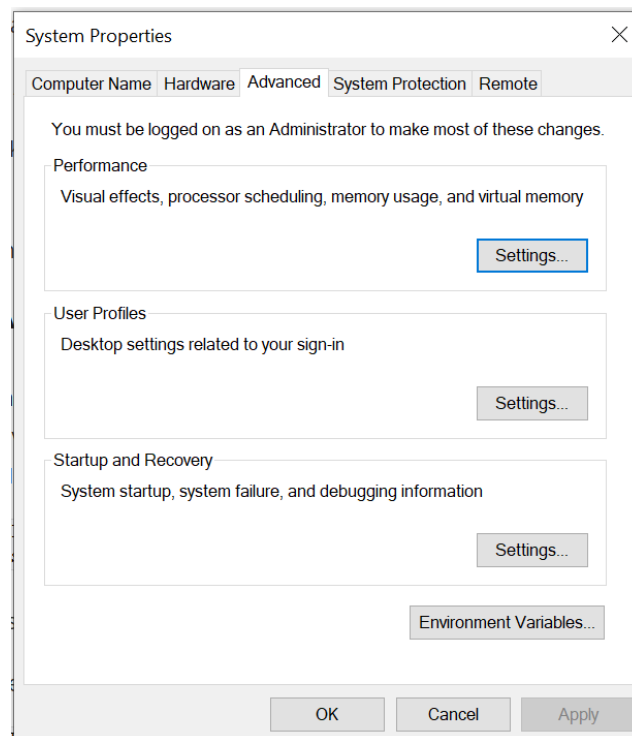


**Gambar 2. 12** Proses saat penginstalan SDK.

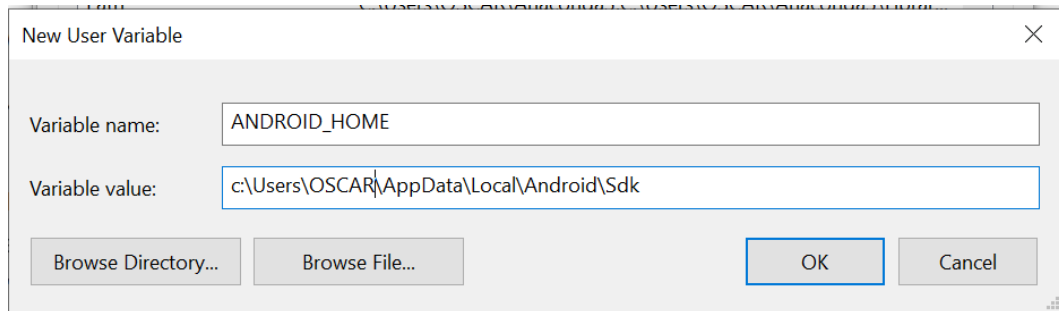


**Gambar 2. 13** Penginstalan selesai.

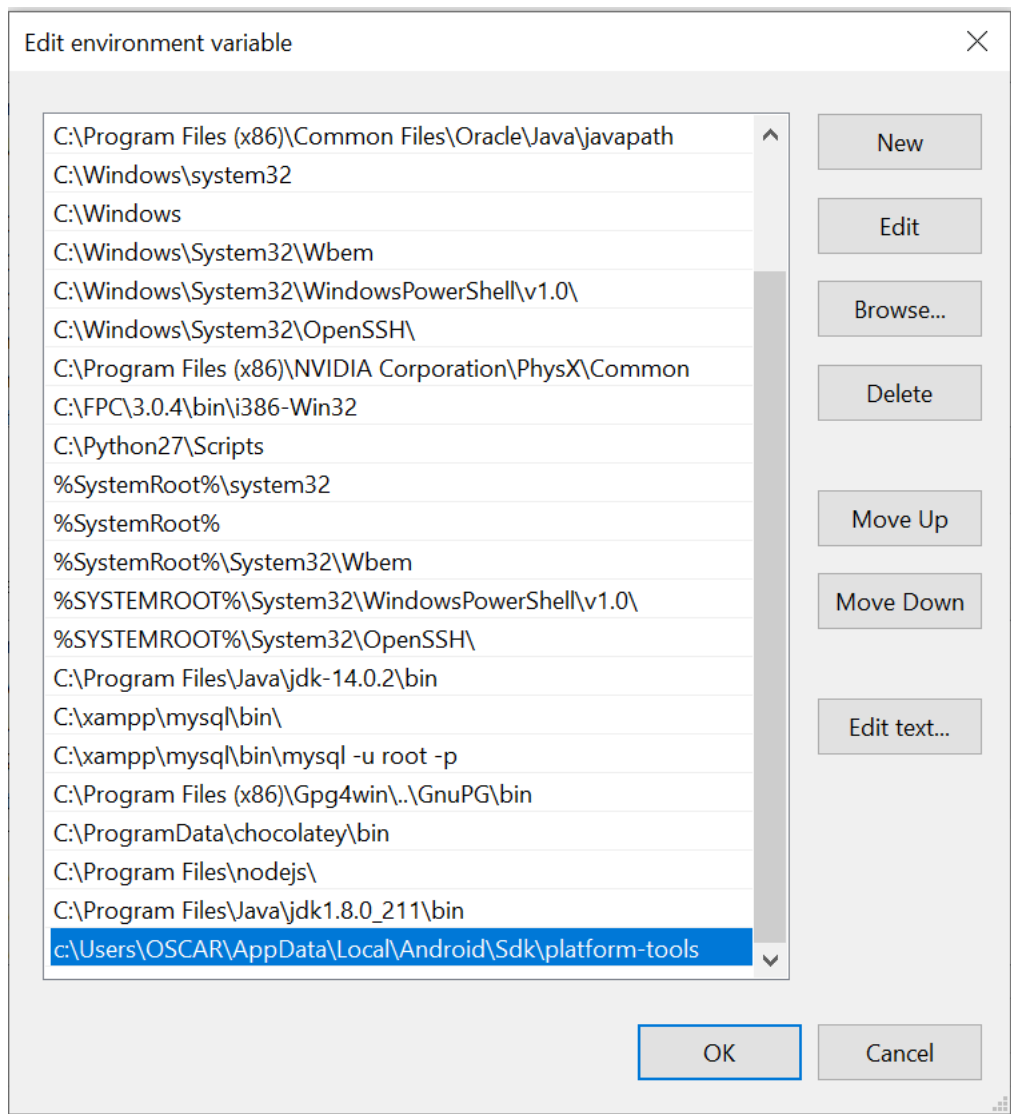
## 2.5 Setup PATH environment Variable



**Gambar 2. 14** Memasuki path environment properties.



**Gambar 2. 15** Menambah user variable baru.

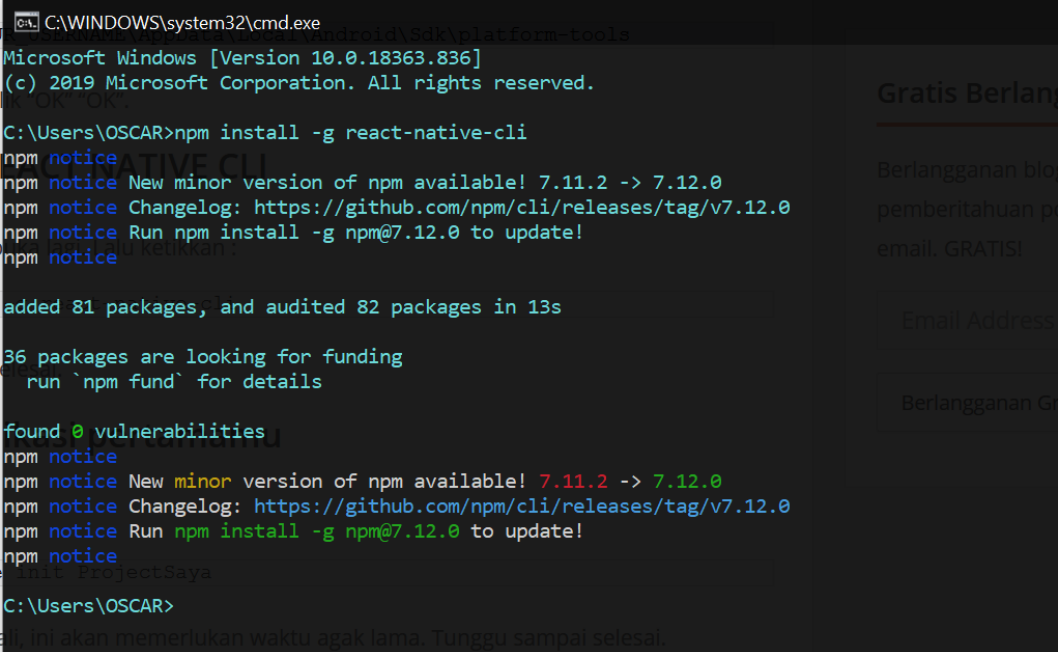


**Gambar 2. 16** Menambahkan Path baru.

## 2.6 Install React Native CLI

Pada langkah ini, membuka kembali Command Prompt dan mengetikkan perintah berikut.

```
npm install -g react-native-cli
```



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.18363.836]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\OSCAR>npm install -g react-native-cli
npm notice
npm notice New minor version of npm available! 7.11.2 -> 7.12.0
npm notice Changelog: https://github.com/npm/cli/releases/tag/v7.12.0
npm notice Run npm install -g npm@7.12.0 to update!
npm notice
added 81 packages, and audited 82 packages in 13s
36 packages are looking for funding
  run `npm fund` for details
found 0 vulnerabilities
npm notice
npm notice New minor version of npm available! 7.11.2 -> 7.12.0
npm notice Changelog: https://github.com/npm/cli/releases/tag/v7.12.0
npm notice Run npm install -g npm@7.12.0 to update!
npm notice
C:\Users\OSCAR>
```

**Gambar 2. 17** Penginstallan React Native CLI.

## 2.7 Membuat Aplikasi Pertama

Masih menggunakan Command Prompt, buat aplikasi menggunakan perintah berikut.

```
React-native init ProjectSaya
```

```
C:\WINDOWS\system32\cmd.exe
C:\Users\OSCAR>react-native init ProjectSaya
This will walk you through creating a new React Native project in C:\Users\OSCAR\ProjectSaya
'npm' is not recognized as an internal or external command,
operable program or batch file.
Installing react-native...
Consider installing yarn to make this faster: https://yarnpkg.com
npm WARN deprecated urix@0.1.0: Please see https://github.com/lydell/urix#deprecated
npm WARN deprecated resolve-url@0.2.1: https://github.com/lydell/resolve-url#deprecated
npm WARN deprecated uglify-es@3.3.9: support for ECMAScript is superseded by 'uglify-js' as of v3.13.0
added 718 packages, and audited 719 packages in 1m
18 packages are looking for funding
  run 'npm fund' for details
Installing REACT NATIVE CLI
found 0 vulnerabilities
info Setting up new React Native app in C:\Users\OSCAR\ProjectSaya
(node:864) Warning: Accessing non-existent property 'padLevels' of module exports inside circular dependency
(Use 'node --trace-warnings ...' to show where the warning was created)
info Adding required dependencies
npm WARN deprecated har-validator@5.1.5: this library is no longer supported
npm WARN deprecated request-promise-native@1.0.9: request-promise-native has been deprecated because it extends the now deprecated request package, see https://github.com/request/request/issues/3142
npm WARN deprecated babel-eslint@10.1.0: babel-eslint is now @babel/eslint-parser. This package will no longer receive updates.
npm WARN deprecated request@2.88.2: request has been deprecated, see https://github.com/request/request/issues/3142
added 458 packages, and audited 1177 packages in 1m
70 packages are looking for funding
  run 'npm fund' for details
16 moderate severity vulnerabilities
To address issues that do not require attention, run:
  npm audit fix
To address all issues (including breaking changes), run:
  npm audit fix --force
Run 'npm audit' for details.
info Adding required dev dependencies
```

Gambar 2. 18 Membuat project baru.

```
C:\WINDOWS\system32\cmd.exe
To address all issues (including breaking changes), run:
  npm audit fix --force
Run 'npm audit' for details.
info Adding required dev dependencies
up to date, audited 1177 packages in 6s
70 packages are looking for funding
  run 'npm fund' for details
16 moderate severity vulnerabilities
To address issues that do not require attention, run:
  npm audit fix
To address all issues (including breaking changes), run:
  npm audit fix --force
Run 'npm audit' for details.
Run instructions for Android:
  • Have an Android emulator running (quickest way to get started), or a device connected.
  • cd "C:\Users\OSCAR\ProjectSaya" && npx react-native run-android
Run instructions for Windows:
  • See https://aka.ms/ReactNativeGuideWindows for the latest up-to-date instructions.
C:\Users\OSCAR>
```

Gambar 2. 19 Membuat project baru (2).

## 2.8 Setting Device/Emulator

Untuk menguji atau menjalankan project, pada praktikum ini akan menggunakan device yang tersambung pada laptop yang terinstal React Native. Sebelum menyambungkan device ke Laptop, hal pertama yang dilakukan adalah masuk ke mode pengembang dan mengaktifkan fitur *USB Debugging* pada device.

## 2.9 Menjalankan React Native App di HP

Pada bagian ini, project yang telah dibuat akan dibuka dan diinstal pada device yang telah terhubung ke laptop.

```
C:\Users\OSCAR>cd ProjectSaya
C:\Users\OSCAR>cd ProjectSaya
The system cannot find the path specified.

C:\Users\OSCAR>cd ProjectSaya
C:\Users\OSCAR>react-native run-android
info Running jetifier to migrate libraries to AndroidX. You can disable it using "--no-jetifier" flag.
(node:11824) Warning: Accessing non-existent property 'padLevels' of module exports inside circular dependency
(Use `node --trace-warnings ...` to show where the warning was created)
Jetifier found 903 file(s) to forward-jetify. Using 8 workers...
info Starting JS server...
* daemon not running; starting now at tcp:5037
* daemon started successfully
info Installing the app...
Downloading https://services.gradle.org/distributions/gradle-6.7-all.zip
.....10%.....20%.....30%.....40%.....50%.....60%.....70%.....
Welcome to Gradle 6.7!

Here are the highlights of this release:
- File system watching is ready for production use
- Declare the version of Java your build requires
```

Gambar 2. 20 Proses membuka project di device yang terhubung.

```
C:\WINDOWS\system32\cmd.exe - "node" "C:\Users\OSCAR\AppData\Roaming\npm\node_modules\react-native-cli\index.js" run-android
For more details see https://docs.gradle.org/6.7/release-notes.html

Starting a Gradle Daemon (subsequent builds will be faster)
File C:\Users\OSCAR\android\repositories.cfg could not be loaded.
Checking the license for package Android SDK Build-Tools 29.0.2 in c:\Users\OSCAR\AppData\Local\Android\Sdk\licenses
License for package Android SDK Build-Tools 29.0.2 accepted.
Preparing "Install Android SDK Build-Tools 29.0.2 (revision: 29.0.2)".
"Install Android SDK Build-Tools 29.0.2 (revision: 29.0.2)" ready.
Installing Android SDK Build-Tools 29.0.2 in c:\Users\OSCAR\AppData\Local\Android\Sdk\build-tools\29.0.2
"Install Android SDK Build-Tools 29.0.2 (revision: 29.0.2)" complete.
"Install Android SDK Build-Tools 29.0.2 (revision: 29.0.2)" finished.
Checking the license for package Android SDK Platform 29 in c:\Users\OSCAR\AppData\Local\Android\Sdk\licenses
License for package Android SDK Platform 29 accepted.
Preparing "Install Android SDK Platform 29 (revision: 5)".
"Install Android SDK Platform 29 (revision: 5)" ready.
Installing Android SDK Platform 29 in c:\Users\OSCAR\AppData\Local\Android\Sdk\platforms\android-29
"Install Android SDK Platform 29 (revision: 5)" complete.
"Install Android SDK Platform 29 (revision: 5)" finished.

> Task :app:compileDebugJavaWithJavac
> Task :app:stripDebugDebugSymbols
Unable to strip the following libraries, packaging them as they are: libc++_shared.so, libevent-2.1.so, libevent_core-2.1.so, libevent_extra-2.1.so, libfb.so, libfbjni.so, libflipper.so, libfolly_futures.so, libfolly_json.so, libglog.so, libglog_init.so, libhermes-executor-common-debug.so, libhermes-executor-common-release.so, libhermes-executor-debug.so, libhermes-executor-release.so, libhermes-inspector.so, libimagepipeline.so, libjsc.so, libjscexecutor.so, libjsijniProfiler.so, libjsinspector.so, libnative-filters.so, libnative-image-transcoder.so, libreact_codegen_reactandroidspec.so, libreact_native_module_core.so, libreactnativeblob.so, libreactnativejni.so, libreactnativeui.so, libreactperfloggerjni.so, libturbo_module_jsi.so, libyoga.so.

> Task :app:installDebug
Installing APK 'app-debug.apk' on 'RNX2002 - 10' for app:debug
Installed on 1 device.

BUILD SUCCESSFUL in 11m 22s
29 actionable tasks: 29 executed
info Connecting to the development server...
8081
info Starting the app on "QK0F8XP75D892TXS"...
Starting: Intent { cmp=com.projectsaya.MainActivity }
```

Gambar 2. 21 Proses membuka project di device yang terhubung (2).

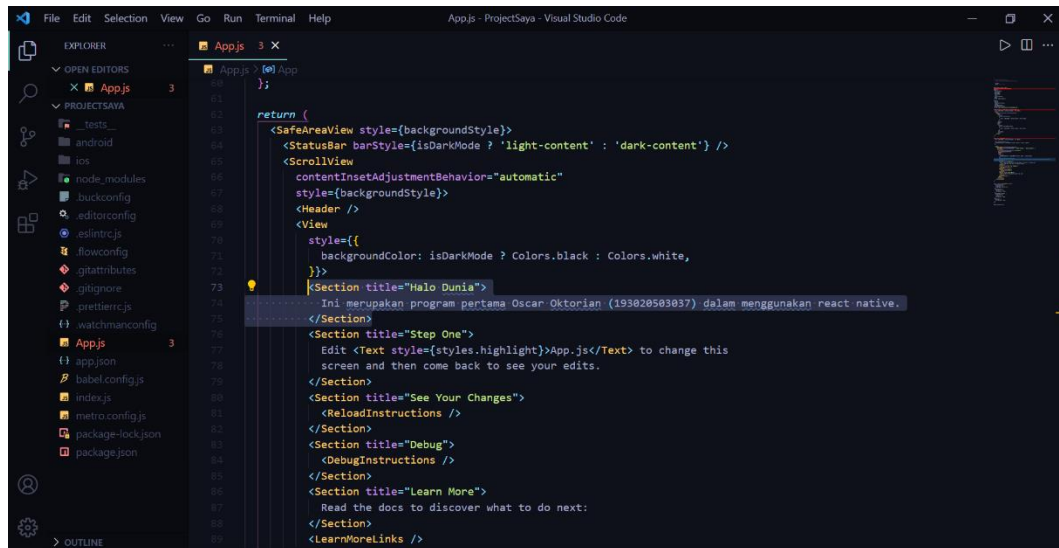


**Gambar 2. 22** Tampilan Aplikasi yang dibuat pada device yang terhubung.

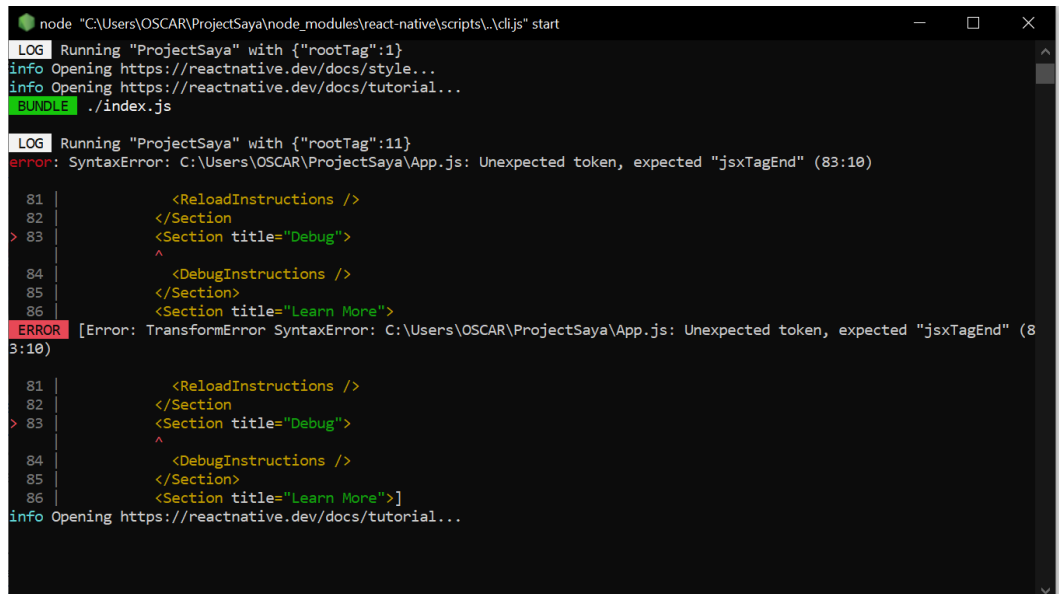


## 2.10 Edit Coding App

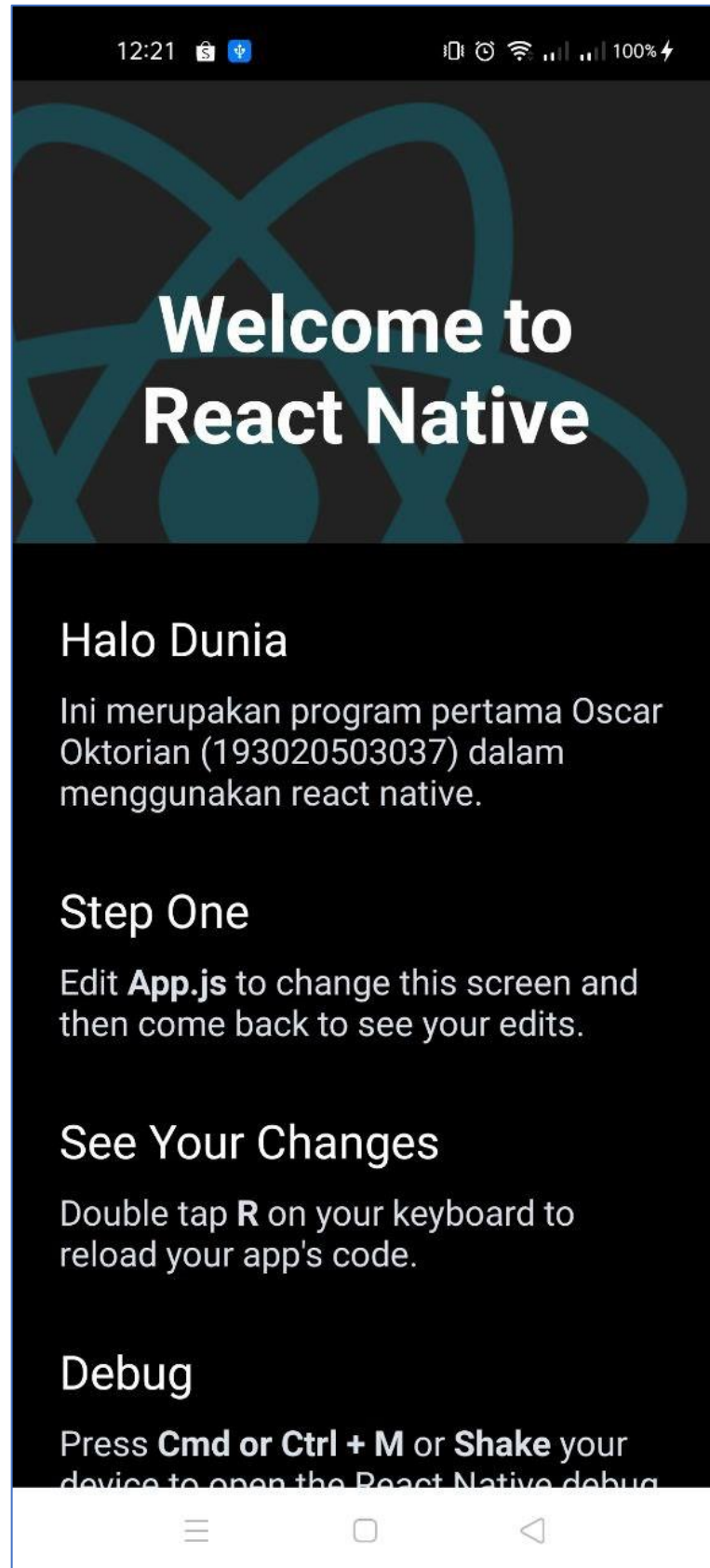
Setelah berhasil menjalankan aplikasi pertama, selanjutnya akan memodifikasi code yang telah ada. Pada praktikum ini, akan menggunakan Visual Studio Code sebagai teks editor. Adapun code yang dimodifikasi yaitu pada file App.js.



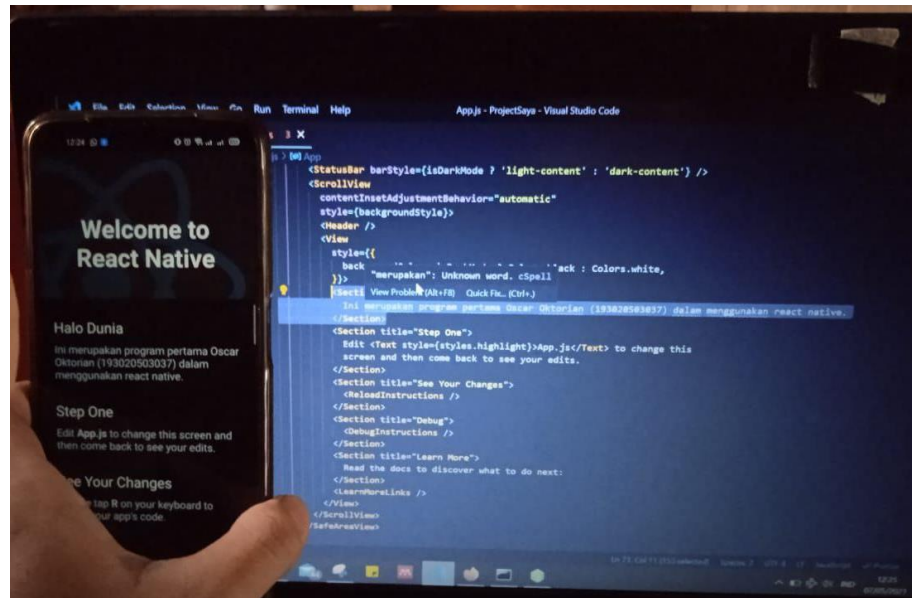
Gambar 2. 23 Mengubah sintaks pada file App.js.



Gambar 2. 24 Log debugging pada jendela node.js.



**Gambar 2. 25** Tampilan aplikasi yang telah dimodifikasi pada device yang terhubung.



**Gambar 2. 26** Tampilan Aplikasi pada device, dan sintaks pada app.js di laptop.

### **BAB III**

### **KESIMPULAN**

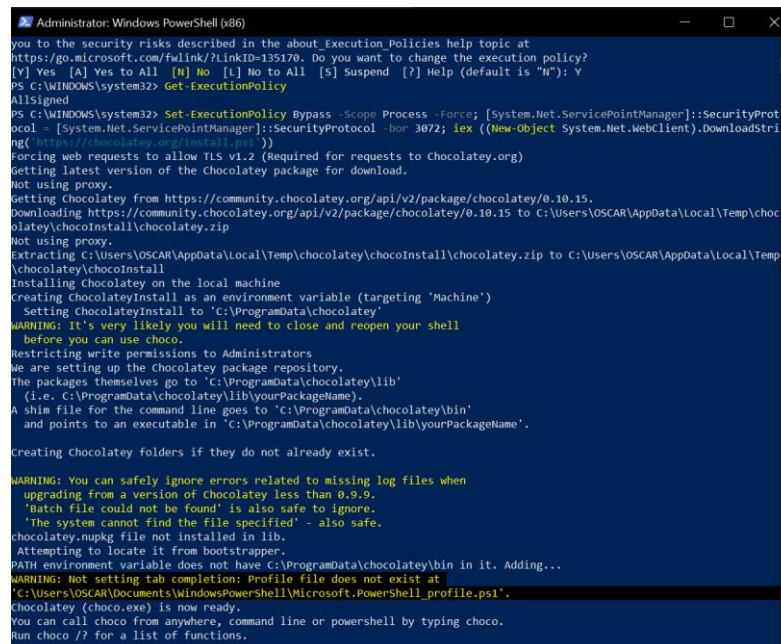
Berdasarkan pada praktikum yang telah dilakukan, hal yang dapat disimpulkan pada modul ini adalah bahwa React Native merupakan sebuah framework dari JavaScript yang memudahkan seorang programmer mengembangkan sebuah aplikasi multi-platform tanpa perlu membuat codebase berbeda untuk setiap platformnya. Selain itu, React Native praktis dan efisien digunakan dalam hal penulisan sintaks. Namun, React Native ditujukan tidak untuk seorang mobile programmer pemula, karena perlunya pengetahuan dasar mengenai JavaScript dan proses penginstalan React Native yang cukup rumit dan memerlukan ruang yang besar pada penyimpanan perangkat.

## **DAFTAR PUSTAKA**

Benefita. 2021. “Apa Itu React Native? Simak Penjelasan Lengkapnya! [Terbaru].” <https://www.niagahoster.co.id/blog/apa-itu-react-native/> (May 9, 2021).

Rasupe. 2019. “Cara Install React Native Di Windows 10 – Rasupe.” <https://rasupe.com/cara-install-react-native-di-windows-10/> (May 9, 2021).

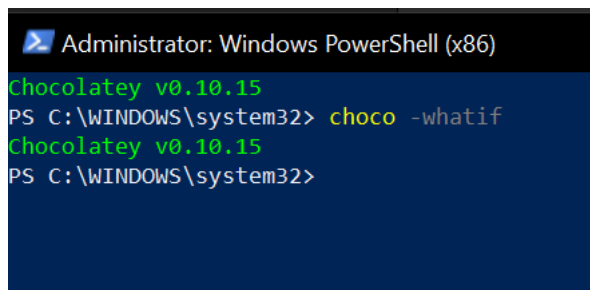
## LAMPIRAN



```
Administrator: Windows PowerShell (x86)
you to the security risks described in the about_Execution_Policies help topic at
https://go.microsoft.com/fwlink/?LinkID=135170. Do you want to change the execution policy?
[Y] Yes [A] Yes to All [N] No [L] No to All [S] Suspend [?] Help (default is "N"): Y
PS C:\WINDOWS\system32> Get-ExecutionPolicy
AllSigned
PS C:\WINDOWS\system32> Set-ExecutionPolicy Bypass -Scope Process -Force; [System.Net.ServicePointManager]::SecurityProt
ocol = [System.Net.ServicePointManager]::SecurityProtocol -bor 3072; iex ((New-Object System.Net.WebClient).DownloadStri
ng(https://chocolatey.org/install.ps1))
Forcing web requests to allow TLS v1.2 (Required for requests to Chocolatey.org)
Getting latest version of the Chocolatey package for download.
Not using proxy.
Getting Chocolatey from https://community.chocolatey.org/api/v2/package/chocolatey/0.10.15.
Downloading https://community.chocolatey.org/api/v2/package/chocolatey/0.10.15 to C:\Users\OSCAR\AppData\Local\Temp\choc
olatey\chocoInstall\chocolatey.zip
Extracting C:\Users\OSCAR\AppData\Local\Temp\chocolatey\chocoInstall\chocolatey.zip to C:\Users\OSCAR\AppData\Local\Temp
\chocolatey\chocoInstall
Installing Chocolatey on the local machine
Creating ChocolateyInstall as an environment variable (targeting 'Machine')
Setting ChocolateyInstall to 'C:\ProgramData\chocolatey'
WARNING: It's very likely you will need to close and reopen your shell
before you can use choco.
Restricting write permissions to Administrators
We are setting up the Chocolatey package repository.
The packages themselves go to 'C:\ProgramData\chocolatey\lib'
(i.e. C:\ProgramData\chocolatey\lib\yourPackageName).
A shim file for the command line goes to 'C:\ProgramData\chocolatey\bin'
and points to an executable in 'C:\ProgramData\chocolatey\lib\yourPackageName'.
Creating Chocolatey folders if they do not already exist.

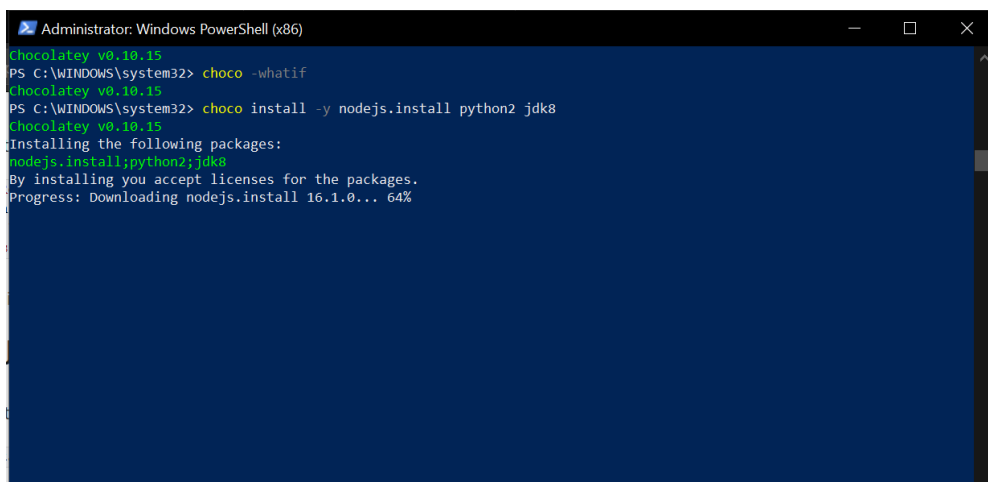
WARNING: You can safely ignore errors related to missing log files when
upgrading from a version of chocolatey less than 0.9.0.
'Batch file could not be found' is also safe to ignore.
'The system cannot find the file specified' - also safe.
chocolatey.nupkg file not installed in lib.
Attempting to locate it from bootstrapper.
PATH environment variable does not have C:\ProgramData\chocolatey\bin in it. Adding...
WARNING: Not setting tab completion: Profile file does not exist at
'C:\Users\OSCAR\Documents\WindowsPowerShell\Microsoft.PowerShell_profile.ps1'.
Chocolatey (choco.exe) is now ready.
You can call choco from anywhere, command line or powershell by typing choco.
Run choco ?? for a list of functions.
```

Gambar 2. 1 Proses Install Chocolatey.



```
Administrator: Windows PowerShell (x86)
Chocolatey v0.10.15
PS C:\WINDOWS\system32> choco -whatif
Chocolatey v0.10.15
PS C:\WINDOWS\system32>
```

Gambar 2. 2 Chocolatey berhasil diinstal.



```
Administrator: Windows PowerShell (x86)
Chocolatey v0.10.15
PS C:\WINDOWS\system32> choco -whatif
Chocolatey v0.10.15
PS C:\WINDOWS\system32> choco install -y nodejs.install python2 jdk8
Chocolatey v0.10.15
Installing the following packages:
nodejs.install;python2;jdk8
By installing you accept licenses for the packages.
Progress: Downloading nodejs.install 16.1.0... 64%
```

Gambar 2. 3 Proses penginstalan JDK, Node.JS dan Python.

```

Administrator: Windows PowerShell (x86)
PS C:\WINDOWS\system32> choco install -y nodejs.install python2 jdk8
Chocolatey v0.10.15
Installing the following packages:
nodejs.install;python2;jdk8
By installing you accept licenses for the packages.
Progress: Downloading nodejs.install 16.1.0... 100%

nodejs.install v16.1.0 [Approved]
nodejs.install package files install completed. Performing other installation steps.
Installing 64 bit version
Installing nodejs.install...
nodejs.install has been installed.
nodejs.install may be able to be automatically uninstalled.
Environment Vars (like Path) have changed. Close/reopen your shell to
see the changes (or in powershell/cmd.exe just type 'refreshenv').
The install of nodejs.install was successful.
Software installed as 'msi'. Install location is likely default.
Progress: Downloading python2 2.7.18... 100%

python2 v2.7.18 [Approved]
python2 package files install completed. Performing other installation steps.
Installing 64-bit python2...
python2 has been installed.
Installed to 'C:\Python27'
Adding C:\Python27 to PATH if needed
python2 may be able to be automatically uninstalled.
Environment Vars (like Path) have changed. Close/reopen your shell to
see the changes (or in powershell/cmd.exe just type 'refreshenv').
The install of python2 was successful.
Software installed as 'msi'. Install location is likely default.
Progress: Downloading jdk8 8.0.211... 100%

jdk8 v8.0.211 [Approved]
jdk8 package files install completed. Performing other installation steps.
Downloading JDK from https://java1.oracle.com/webapps/download/GetFile/1.8_0_211-b12/478a62b7d4e34b78b671c754eaf38ab/windows-1586/jdk-8u211-windows-x64.exe
Installing jdk8...
jdk8 has been installed.
PATH environment variable does not have C:\Program Files\Java\jdk1.8.0_211\bin in it. Adding...
jdk8 may be able to be automatically uninstalled.
Environment Vars (like Path) have changed. Close/reopen your shell to
see the changes (or in powershell/cmd.exe just type 'refreshenv').
The install of jdk8 was successful.
Software installed to 'C:\Program Files\Java\jdk1.8.0_211\'

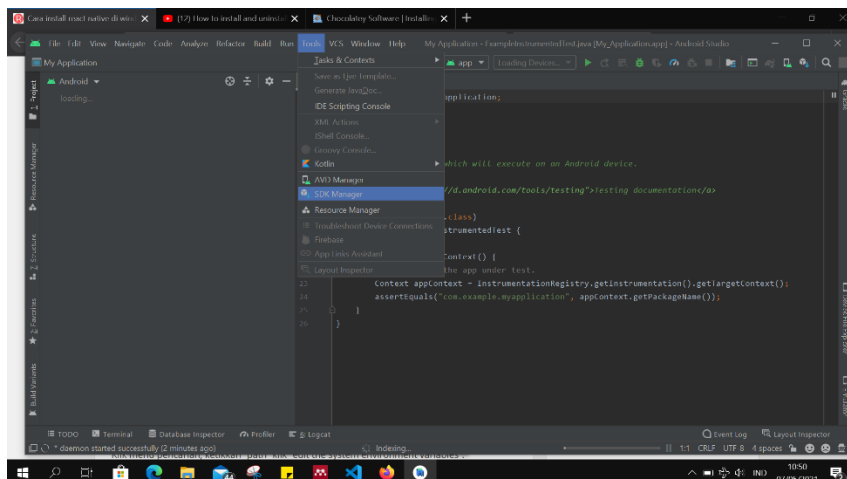
```

**Gambar 2. 4 Penginstalan JDK, Node.JS dan Python telah selesai dilakukan.**

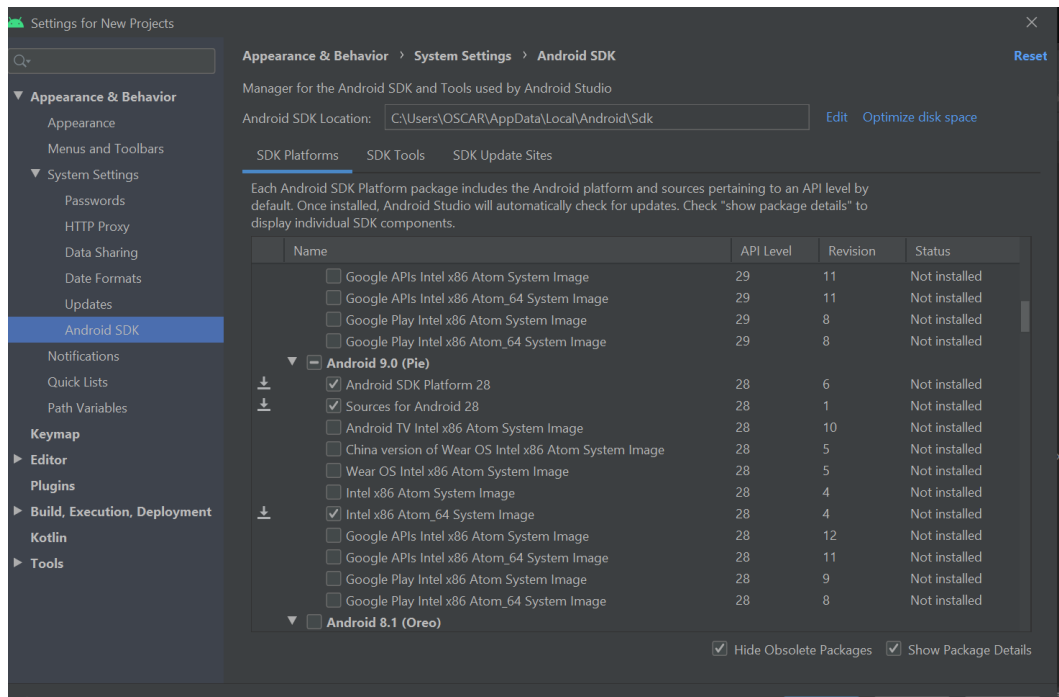
Organize				
Name	Publisher	Installed On	Size	Version
ActiveState Komodo Edit 12.0.1	ActiveState Software Inc.	29/03/2021	257 MB	12.0.1
Adobe Flash Player 32 NPAPI	Adobe	16/06/2020	20.5 MB	32.0.0.387
Adobe Reader XI (11.0.23)	Adobe Systems Incorporated	22/11/2019	190 MB	11.0.23
Affinity Photo	Serif (Europe) Ltd	10/04/2021	1.01 GB	1.9.2.1035
AIMP	AIMP DevTeam	20/03/2021		v4.70.2242, 01.02.2021
Alice 3.3.6.0	Alice Team, Carnegie Mellon University	20/09/2020		3.6.0.0
Anaconda3 2019.10 (python 3.7.4 64-bit)	Anaconda, Inc.	05/12/2020		2019.10
Android Studio	Google LLC	26/04/2021		4.1
Avast Free Antivirus	Avast Software	24/04/2021	21.3.2459	
balenaEtcher 1.5.115	Balena Inc.	20/01/2021	374 MB	1.5.115
Block Keeper	Dallas McNeil	15/04/2019	64.5 MB	2.2.0
Canon IP2700 series Printer Driver	Canon Inc.	26/05/2020		1.02
Canon MG2500 series MP Drivers	Canon Inc.	26/05/2020		3.3.0
Canon My Printer	Canon Inc.	26/05/2020		
Cisco Packet Tracer 8.0 64Bit	Cisco Systems, Inc.	26/03/2021	416 MB	
CodeBlocks	The Code::Blocks Team	26/05/2020		20.03
Corel Graphics - Windows Shell Extension	Corel Corporation	26/05/2020	2.92 MB	18.2.0.840
CorelDRAW Graphics Suite X7 (64-Bit)	Corel Corporation	26/05/2020	1.02 GB	17.0.0.491
Dev-C++	Bloodshed Software	26/05/2020		5.11
DriverToolkit version 8.5.0.0	MegaSoft Software	08/04/2019	6.85 MB	8.5.0.0

Currently installed programs Total size: 10.3 GB

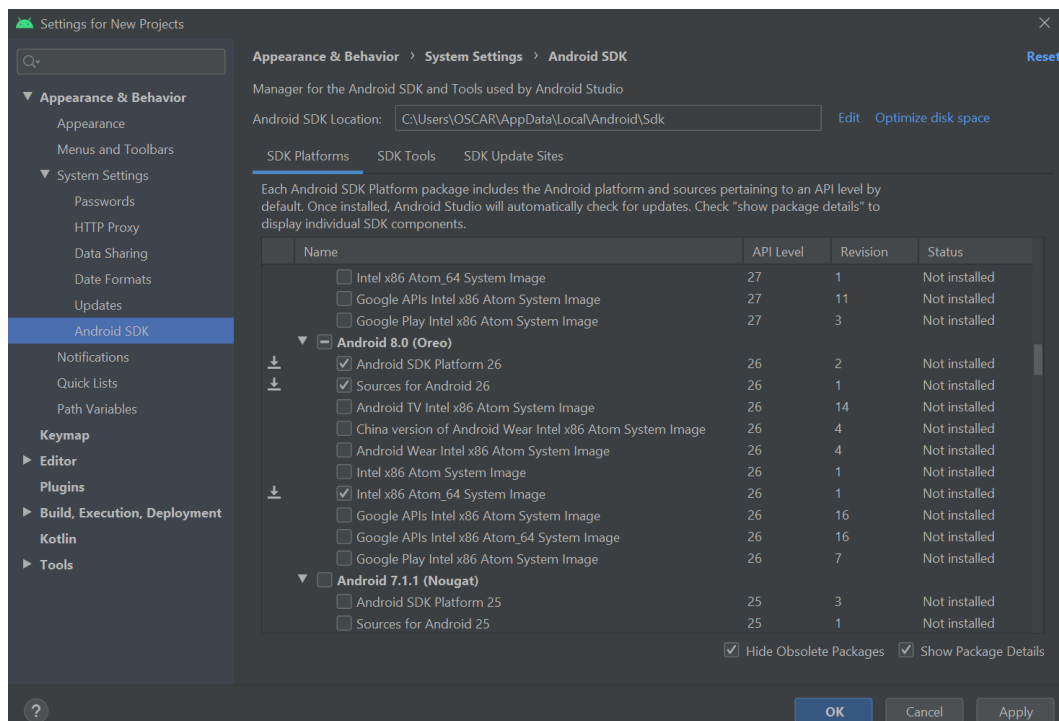
**Gambar 2. 5 Aplikasi Android Studio telah diinstal.**



**Gambar 2. 6 SDK Manager.**

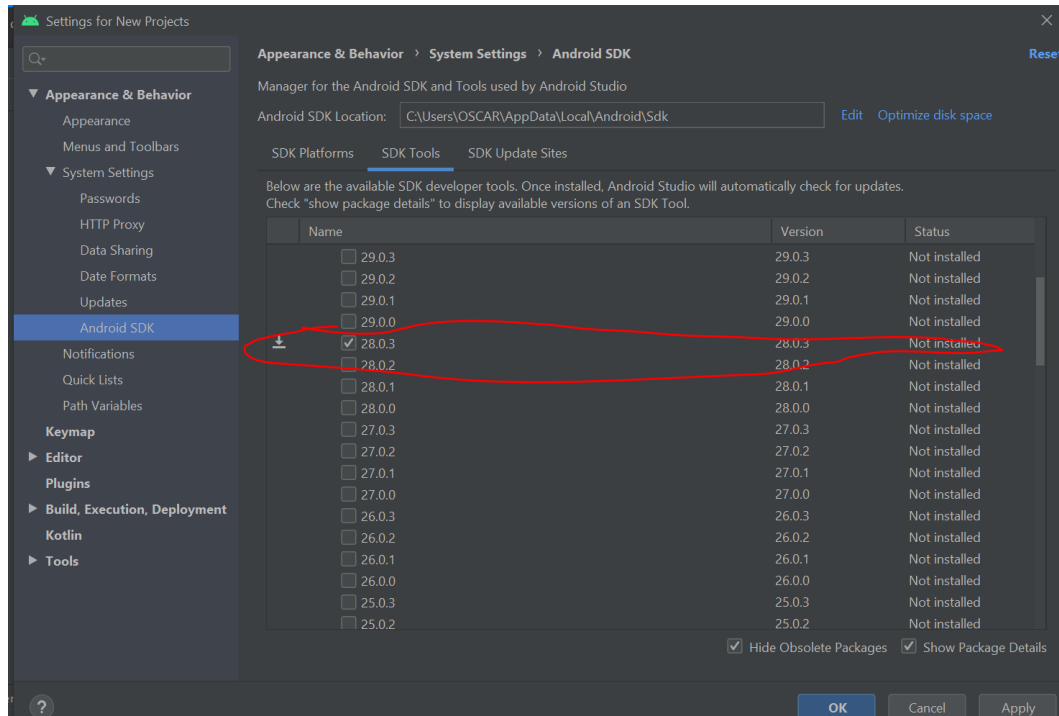


**Gambar 2. 7 SDK Manager Android 9.0.**

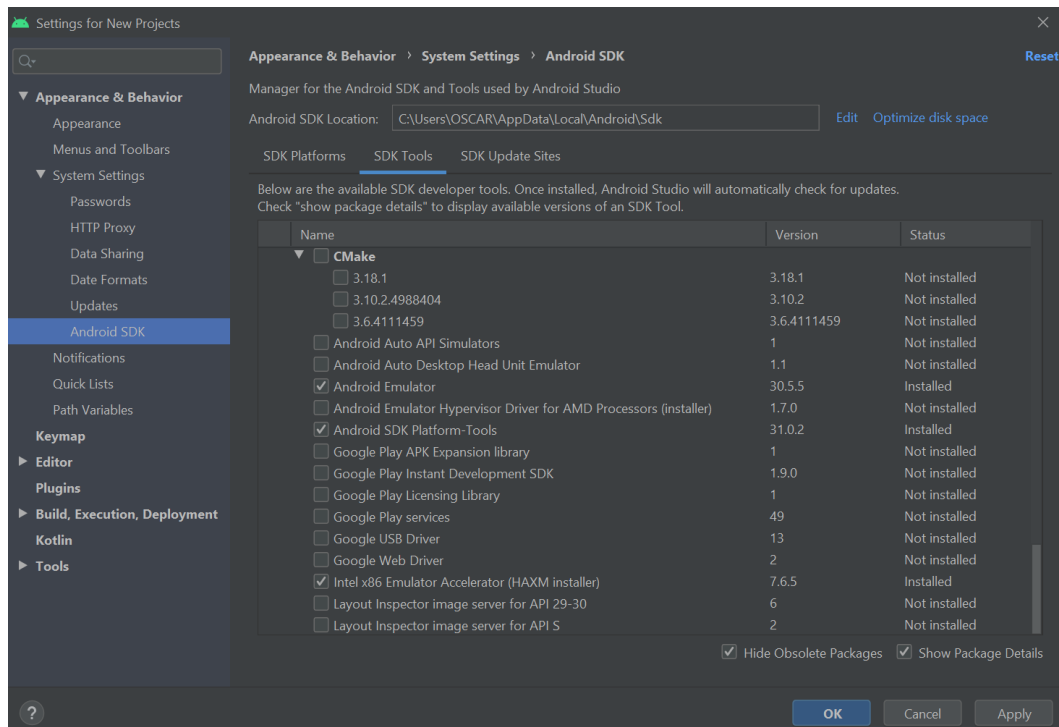


**Gambar 2. 8 SDK Manager Android 8.0.**

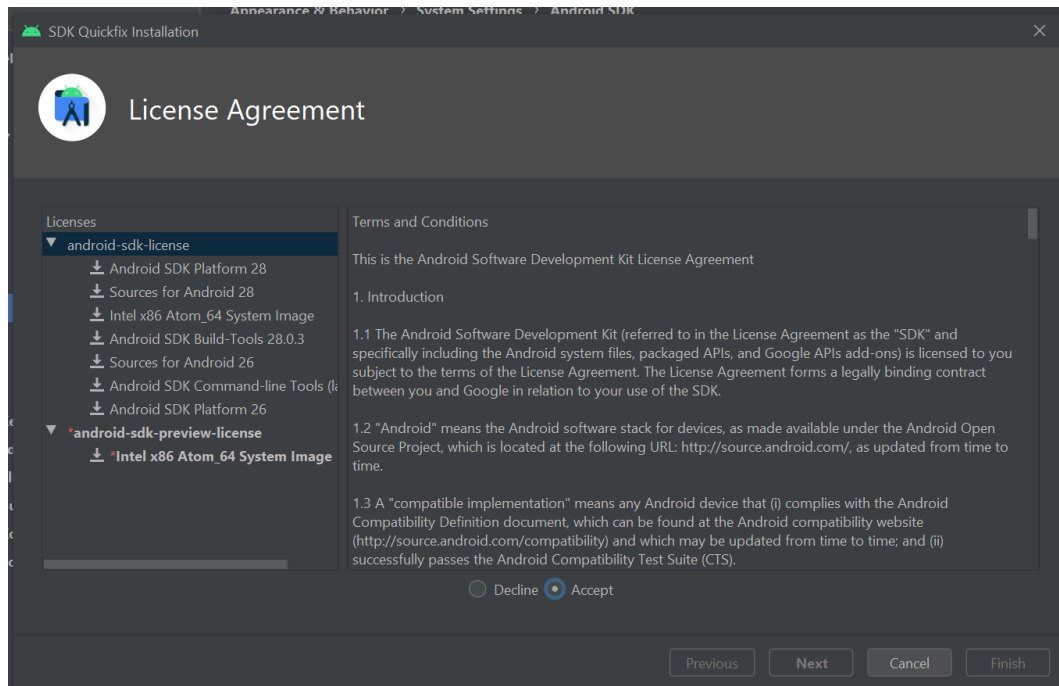




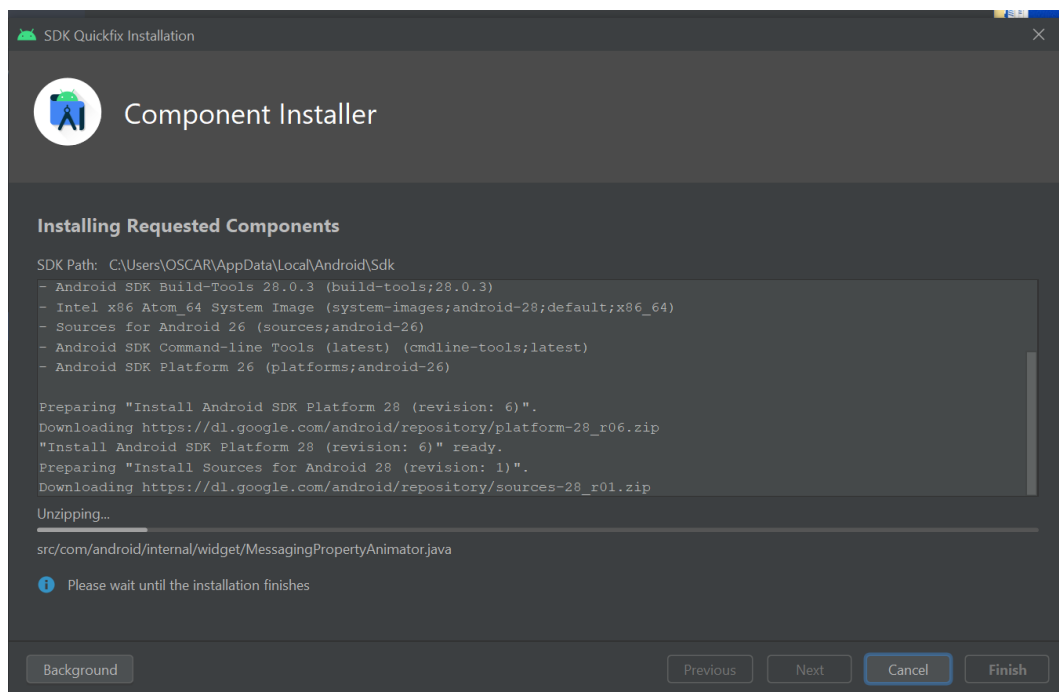
**Gambar 2. 9 SDK Tool 28.0.3.**



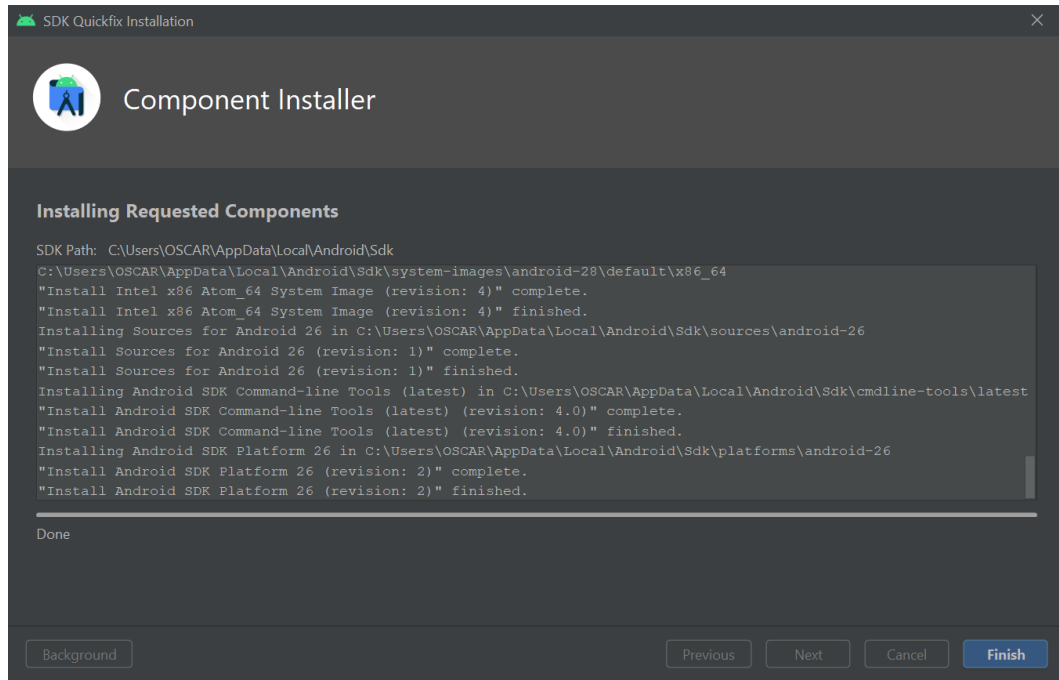
**Gambar 2. 10 SDK Tools Andoid.**



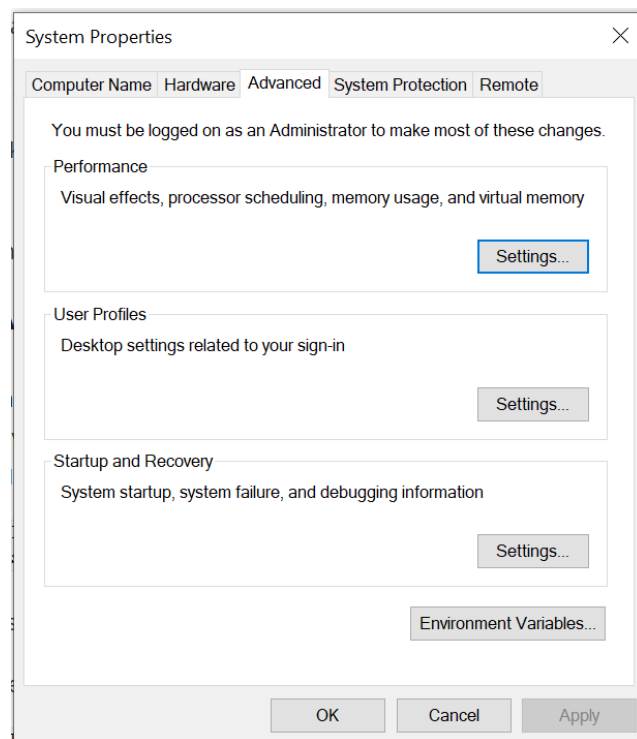
**Gambar 2. 11 Liscense agreement sebelum menginstall.**



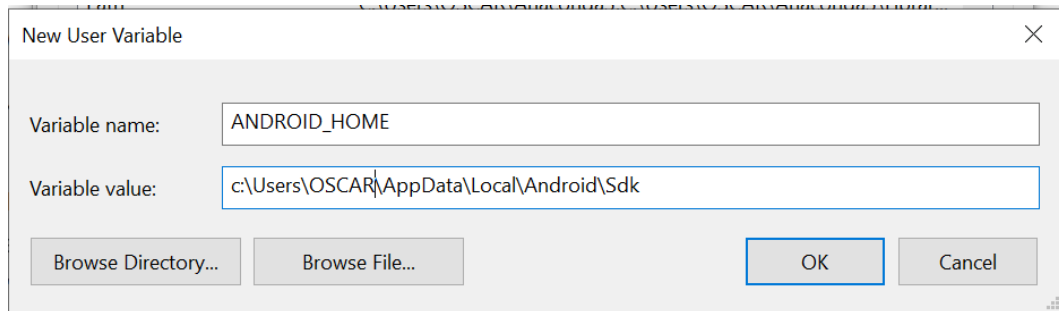
**Gambar 2. 12 Proses saat penginstalan SDK.**



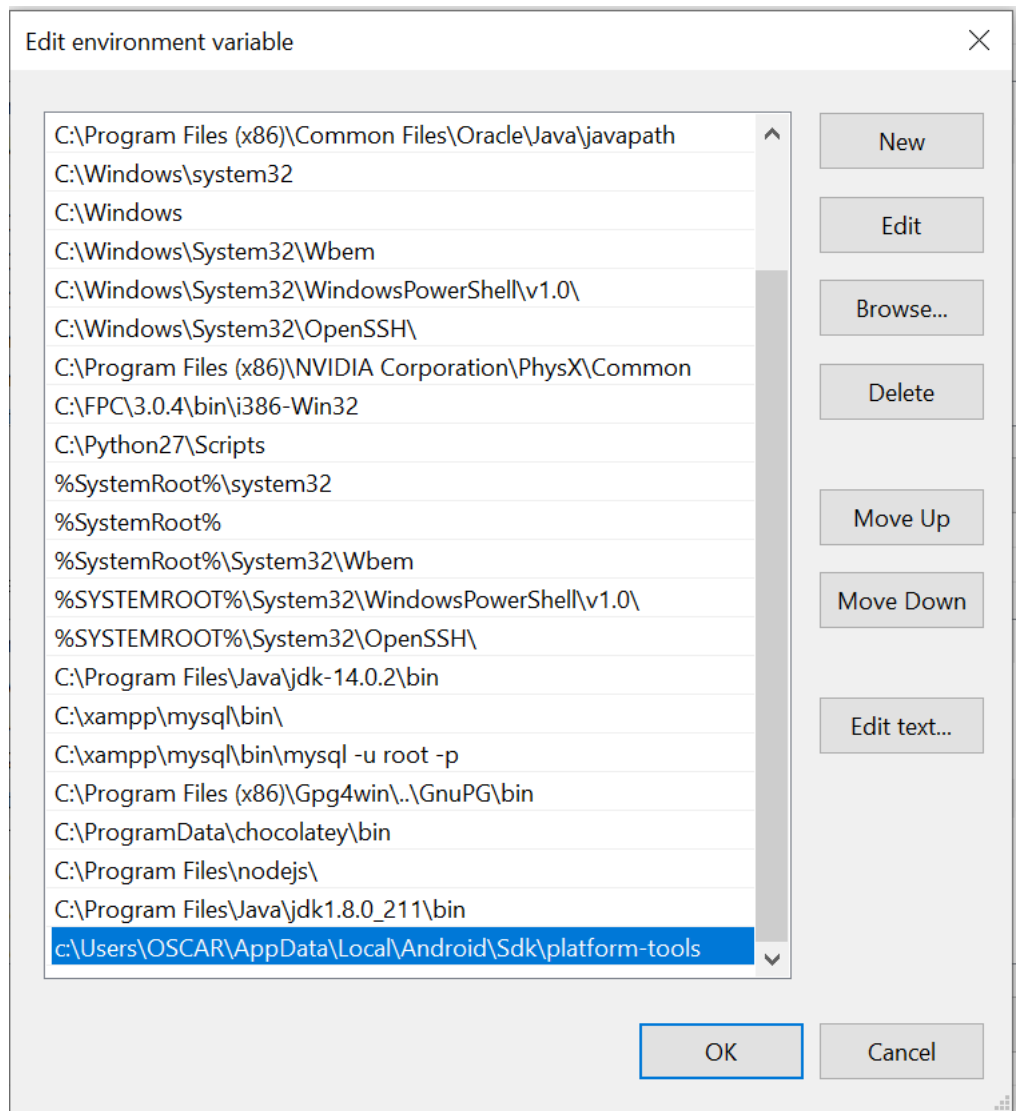
**Gambar 2. 13 Penginstalan selesai.**



**Gambar 2. 14 Memasuki path environment properties.**



**Gambar 2. 15 Menambah user variable baru.**



**Gambar 2. 16 Menambahkan Path baru.**

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.18363.836]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\OSCAR>npm install -g react-native-cli

npm notice New minor version of npm available! 7.11.2 -> 7.12.0
npm notice Changelog: https://github.com/npm/cli/releases/tag/v7.12.0
npm notice Run npm install -g npm@7.12.0 to update!

added 81 packages, and audited 82 packages in 13s

36 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
npm notice New minor version of npm available! 7.11.2 -> 7.12.0
npm notice Changelog: https://github.com/npm/cli/releases/tag/v7.12.0
npm notice Run npm install -g npm@7.12.0 to update!

C:\Users\OSCAR>
```

**Gambar 2. 17 Penginstallan React Native CLI.**

```
C:\WINDOWS\system32\cmd.exe
C:\Users\OSCAR>react-native init ProjectSaya

This will walk you through creating a new React Native project in C:\Users\OSCAR\ProjectSaya
If you prefer not to use a shell script, you can also manually create the files listed below
'npm' is not recognized as an internal or external command,
operable program or batch file.

Installing react-native...
Consider installing yarn to make this faster: https://yarnpkg.com
npm WARN deprecated urix@0.1.0: Please see https://github.com/lydell/urix#deprecated
npm WARN deprecated resolve-url@0.2.1: https://github.com/lydell/resolve-url#deprecated
npm WARN deprecated uglify-es@3.3.9: support for ECMAScript is superseded by 'uglify-js' as of v3.13.0

added 718 packages, and audited 719 packages in 1m

18 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

Info Setting up new React Native app in C:\Users\OSCAR\ProjectSaya
(node:864) Warning: Accessing non-existent property 'padLevels' of module exports inside circular dependency
(Use `node --trace-warnings ...` to show where the warning was created)
Info Adding required dependencies
npm WARN deprecated han-validator@5.1.5: this library is no longer supported
npm WARN deprecated request-promise-native@1.0.9: request-promise-native has been deprecated because it extends the now deprecated request package, see https://github.com/request/request/issues/3142
npm WARN deprecated babel-eslint@10.1.0: babel-eslint is now @babel/eslint-parser. This package will no longer receive updates.
npm WARN deprecated request@2.88.2: request has been deprecated, see https://github.com/request/request/issues/3142

added 458 packages, and audited 1177 packages in 1m

70 packages are looking for funding
  run `npm fund` for details

16 moderate severity vulnerabilities

To address issues that do not require attention, run:
  npm audit fix

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.
```

**Gambar 2. 18 Membuat project baru.**

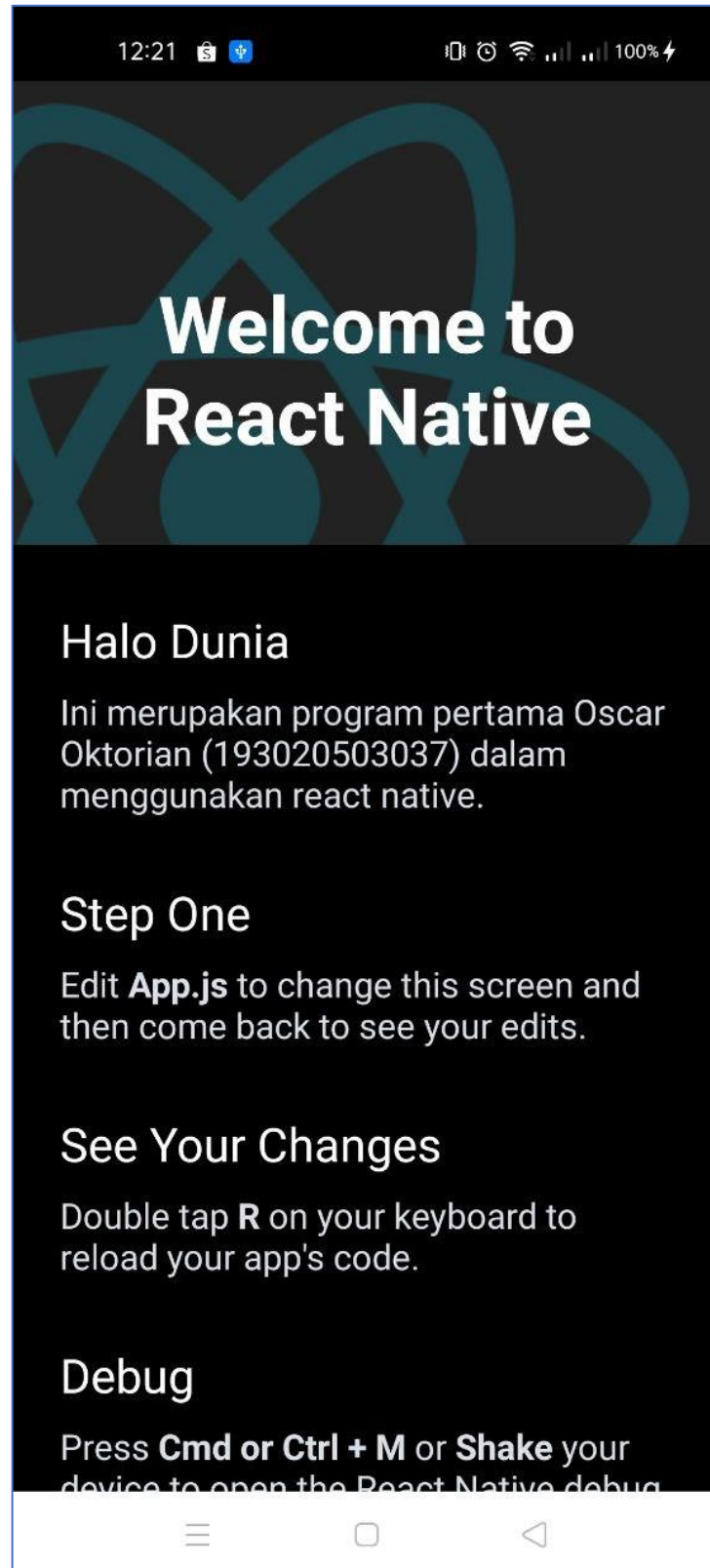




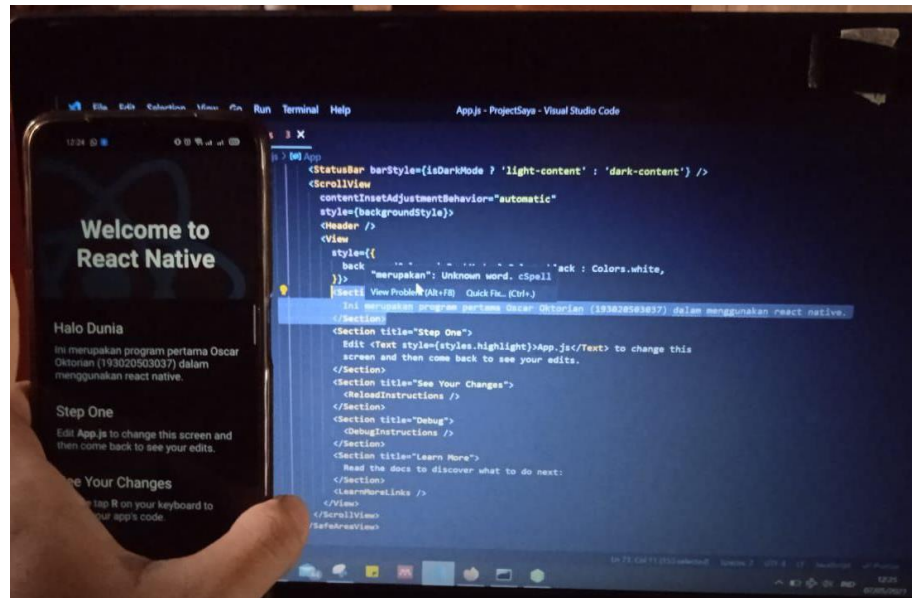
Gambar 2. 22 Tampilan Aplikasi yang dibuat pada device yang terhubung.







Gambar 2. 25 Tampilan aplikasi yang telah dimodifikasi pada device yang terhubung.



**Gambar 2. 26** Tampilan Aplikasi pada device, dan sintaks pada app.js di laptop.