

## Answers: [12.2.1.2 Lab - Passcode Locks](#)

### Introduction

For most users, these Android or iOS devices are on the go with the users, and they are usually powered on all the time. If the device is lost or stolen, the passcode can prevent unauthorized access.

In this lab, you will set a passcode lock, change a passcode lock, and fail passcode authentication. You will also configure the device to use your fingerprints if it has biometric capability. Finally, you will remove the passcode and biometric locks

### Recommended Equipment

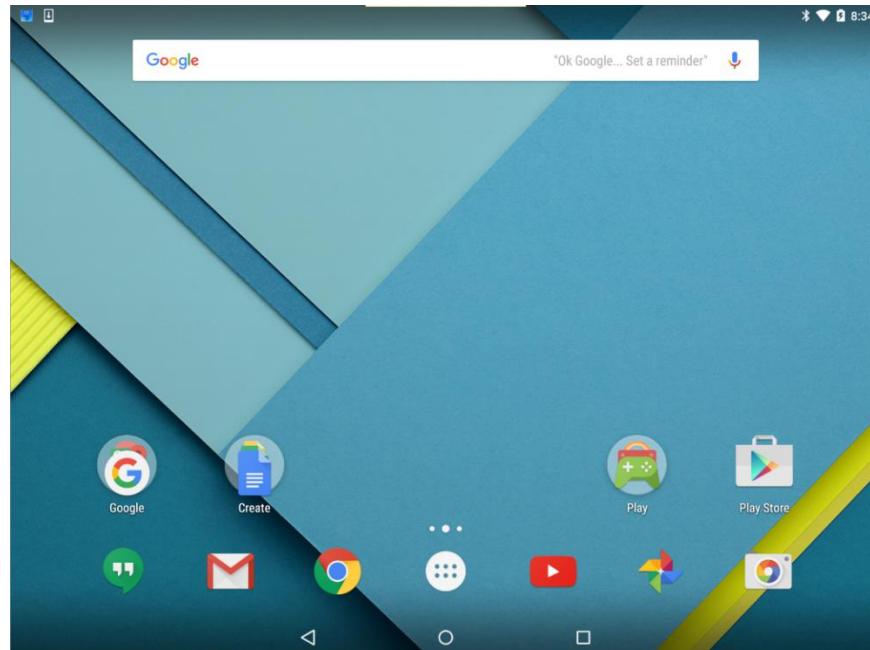
- Android tablet or smartphone running Android version 7.0 or higher.
- iOS tablet or smartphone running iOS version 10.0 or higher

### Instructions

#### Part 1: Passcode Lock on Android

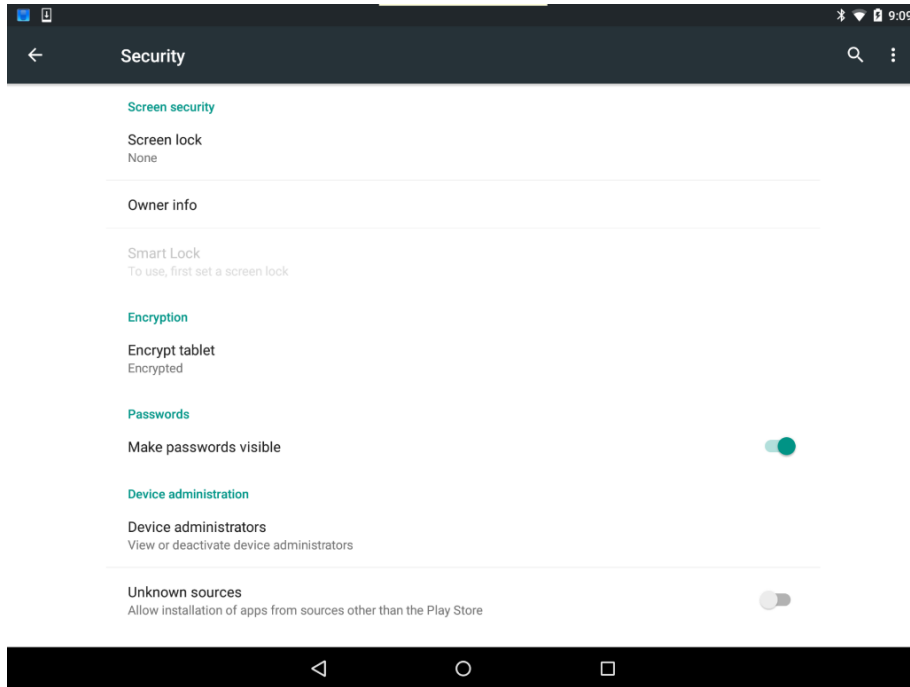
##### Step 1: Configure Passcode Lock on an Android Device.

- a. With the device powered on, navigate to the **Home** screen.



## Lab - Passcode Locks

- b. Go to **Apps** or **All apps** > touch **Settings** > touch **Security**. There are other names for **Security** depending on your device. The following are some samples: **Lock screen and security**, **Lock screen**, or **Security & location**. Security will be used throughout this lab.



- c. Touch **Screen lock** or **Screen lock type** to choose a method for unlocking the screen.

Question:

What are the unlocking methods available on your device?

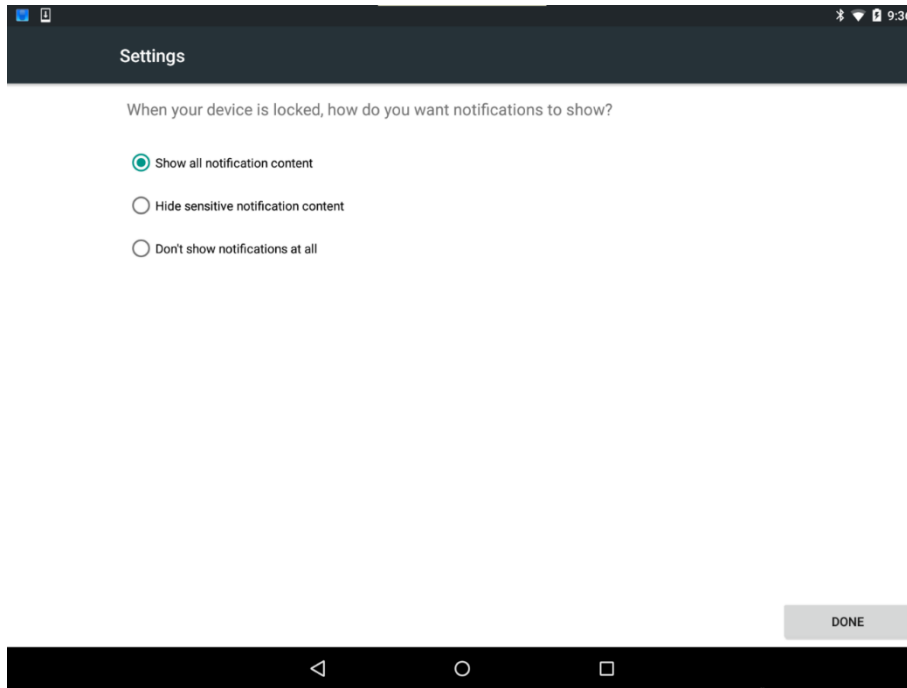
*Type your answers here.*

- d. Touch **PIN** to set a PIN for unlocking the screen.
- e. If the **Encryption** screen appears, Android asks if you want to use the PIN to encrypt the device. Touch **No thanks** and then touch **CONTINUE** to continue.

This is useful as the device's filesystem will be encrypted based on PIN, making it unreadable until the PIN is provided. While this feature increases security, it is out of the scope of this lab.

- f. In the **Choose your PIN** or **Set PIN** screen, enter **123456**. Touch **CONTINUE**.
- g. Type **123456** to confirm the **PIN**. Touch **OK** to confirm.

- h. Depending on your device, you may be prompted with other questions, such as Backup your PIN and Show all notification content. Consult your instructor as necessary.



- i. In the Secure Lock Settings, enter the PIN when prompted. Enable **Lock instantly with power key**.  
**Note:** This option may not be available on device all models/versions.

### Step 2: Use the PIN to Unlock the Screen.

- Press the **Home** button to return to the **home screen**.
- Press the **Power** button briefly to lock the screen. The device will go into sleep mode and the screen will go dark.
- Press the **Power** button briefly to wake up the device. Notice that the device will now require the **PIN** before allowing access. Enter **123456**, the previously configured **PIN**. Touch the **check mark** or **OK** on the number pad.

Question:

What happens?

*Type your answers here.*

- Press the **Power** button briefly to lock the device.
- Press the **Power** button briefly to wake up the device. Swipe as necessary to see the prompt to enter the PIN.
- Enter **654321**. Notice this is not the correct PIN that was configured on the device.

Question:

What happens?

*Type your answers here.*

- g. Enter the incorrect **PIN** a few more times.

Question:

What happens?

*Type your answers here.*

Repeatedly entering incorrect PINs is an indicator that someone is trying to guess the PIN. As a security measure, Android forces the user to wait 30 seconds before attempting another guess.

- h. Touch **OK** when 30 seconds have passed. Notice that Android will keep a countdown in the background.
- i. After 30 seconds, enter the correct PIN to unlock the device.

### Step 3: Fingerprint Lock if available.

For some of the newer Android devices, fingerprints can be used to unlock the devices. In this step, you will configure the device so you can use your fingerprint to unlock the device. The PIN configured in a previous step is used as the backup unlock option in the event that the fingerprint scanner is not working or after a restart of the device.

- a. Navigate back to **Security**. (**Apps > Settings**)
- b. Locate the option that allows you to configure fingerprint to unlock the device. The options can be **Nexus imprint**, **Pixel imprint**, or **Biometrics and security > Fingerprint**. Provide the PIN when prompted.  
**Note:** If the PIN is not configured in the previous step, you will be prompted to configure a backup unlock option, such as a PIN, passcode, or pattern.
- c. Verify that the fingerprint is allowed to unlock the device.
- d. Depending on your device, you can configure the device to require a PIN, password or pattern to start the device or how do you want notifications to show when the device is locked.
- e. Locate the imprint or fingerprint sensor on your device. Follow the directions provided by your device to capture and add your fingerprint. Touch done when finished adding fingerprints.
- f. Lock the phone and use your fingerprint to unlock your device.

### Step 4: Face Lock if available.

On some of the newer Android devices, your face can be used to unlock the device. The PIN configured in a previous is the backup unlock method.

- a. Navigate back to **Security** or **Security & Location**. (**Apps > Settings**)
- b. Locate the option that allows you to configure your face to unlock the device. The options can be **Biometric and security > Facial Recognition** or **Smart Lock > Trusted face**. Enter the PIN when prompted.
- c. You will need to position your face in the on-screen circle and follow the on-screen instructions to register your face.
- d. Verify that the Face Lock is working, lock the device and attempt to unlock using your face. After the device recognizes your face, swipe to unlock the device.

### Step 5: Clean up

- a. Navigate to **Security** and locate the options to configure fingerprints. Enter the PIN if prompted.
- b. Tap the fingerprints and select **Delete** or **Remove**.
- c. Remove the trusted face.

- d. Navigate back to **Screen lock type**. (**Apps > Settings > Security**)

Question:

What happens? Explain.

*Type your answers here.*

- e. Enter the correct PIN. Touch **None**.
- f. Press the **power** button briefly to lock the screen.
- g. Press the **power** button briefly to unlock the screen.

Question:

What happens?

*Type your answers here.*

- h. Navigate to **Screen lock settings** (**Apps > Settings > Lock Screen**). Disable **Lock instantly with power key**.

Question:

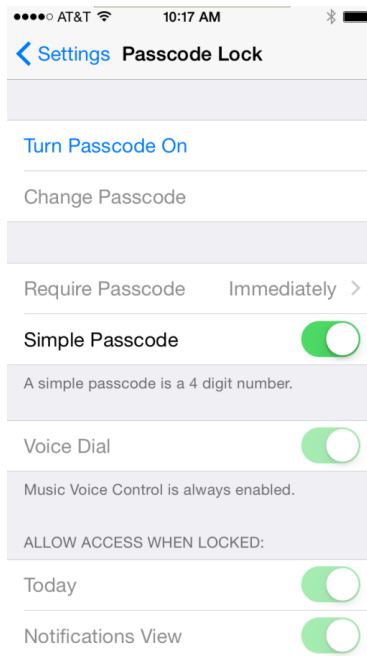
What are other security settings available on your device?

*Type your answers here.*

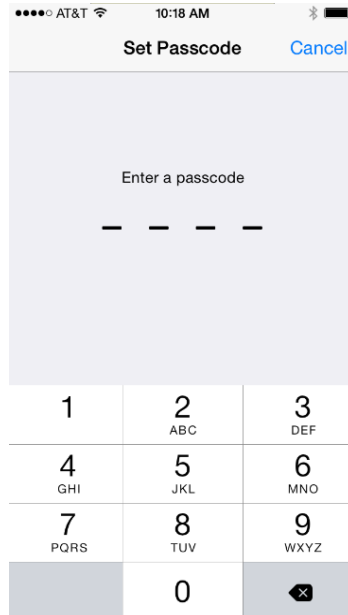
## Part 2: Passcode Lock on iOS

### Step 1: Configure Passcode Lock on an iOS Device.

- a. Turn on the device and navigate to **Settings**.
- b. Depending on your iOS version, touch **Face ID & Passcode**, **Touch ID & Passcode**, or **Passcode**.



- c. Touch **Turn Passcode On**.



- d. Enter **123456** as the passcode if allowed by the device. Otherwise, use **1234** as the passcode for the rest of this lab.
- e. Re-enter **123456** to confirm the passcode.
- f. Verify that Require Passcode is set to **Immediately**.

### Step 2: Use the Passcode to Unlock the Screen.

- a. Press the **Power** button briefly to lock the device.

- b. Slide to unlock the device. Enter the passcode **123456** when prompted.



Question:

What happens?

*Type your answers here.*

- c. Press the **Power** button briefly to lock the device.
- d. Press the **Power** button briefly to unlock the device.
- e. Type **654321**. Notice this is not the passcode configured in the device.
- f. Touch **OK**. What happens?

Question:

What happens?

*Type your answers here.*

- g. Enter the incorrect PIN 5 more times.

Question:

What happens?

*Type your answers here.*

- h. After 1 minute, enter the correct passcode.

### Step 3: Configure Touch ID.

If your device supports Touch ID, you can use your fingerprint to unlock the device. **Note:** A passcode needs to be configured prior to configuring Touch ID.

- a. Touch **Settings** > tap **Touch ID & Passcode**. Enter the passcode when prompted.

- b. Touch **Add a Fingerprint**. Follow the directions provided by the device. Touch the **Home** button as you hold the device normally.
- c. Lock the device and verify that you can unlock the device using fingerprints.

#### Step 4: Configure Face ID.

If the iOS device supports Face ID, you can use facial recognition, rather than a password to unlock your device. A passcode configured in a previous step is necessary to complete the following exercise.

- a. On the iPhone, tap **Settings > Face ID & Passcode**. If prompted, enter your passcode.
- b. Tap **Set Up Face ID**, then position your face in front of your device.



- c. Touch **Get Started**, look straight into your iPhone. Make sure to place your face in the circle at the center of the screen.
- d. Slowly move your head to complete the circle. This ensures that your face is scanned from all angles. When you finish the first Face ID scan, tap **Continue**. Follow the on-screen instructions.
- e. Touch **Done** when the setup is complete.
- f. Lock your device as necessary.
- g. Hold your device in portrait orientation. Make sure that nothing is covering the camera.
- h. Look briefly at the screen. The lock icon should change from locked to unlocked.
- i. As soon as the lock icon changes, swipe from the bottom of the screen to unlock the device.



### Step 5: Clean up.

- a. Go to **Settings > Passcode, Touch ID & Passcode, or Face ID & Passcode**.

Question:

What happens? Explain.

*Type your answers here.*

- b. Type the correct PIN when prompted.
- c. In the **Face ID & Passcode** screen, touch **Reset Face ID** and as necessary, touch **Turn Passcode Off**.  
In the **Touch ID & Passcode** screen, remove the fingerprints and touch **Turn Passcode Off** as necessary.

In the **Passcode Lock** window, touch **Turn Passcode Off**.

- d. Press the **Power** button briefly to lock the device.
- e. Press the **Power** button briefly to unlock the device.

Question:

What happens?

*Type your answers here.*