# Introduction to Computers Lab
# First Year (2017– 2018)

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## Lab 1

# Agenda

1. Lab Rules.
2. Introduction.
3. Windows.
4. Internet:
   - What is URL and Browser.
   - Google Search Engine.
   - What made Google so great.
   - How to create a Google account.
   - Sign in.
   - How to upload / download files using Google drive.

# 1. Lab Rules

1. Lab is for practical work.
2. Lab Content will be sent weekly to your Facebook group.
3. Attendance limited to student section.
4. No attendance for late students (15 min from lab start time).
5. Maximum no. of students per machine = 2.
6. Assignment degrees will be granted on lab tasks.
7. Be ready for Quizzes in any time.

# 2. Introduction

- A **computer** is an electronic device that manipulates information, or "data." It has the ability to **store**, **retrieve**, and **process** data.

- You can use a computer to ***type*** documents, ***send*** email, and ***browse*** the internet.
- You can also use it to handle spreadsheets, accounting, database management, presentations, games, and more.

# 2. Introduction (cont.)

All types of computers consist of two basic parts:

- **Hardware:**
  - Is any part of your computer that has a **physical structure**, such as the computer monitor or keyboard.

- **Software**:
  - Is any **set of instructions** that tells the hardware what to do.
  - It is what guides the hardware and tells it how to accomplish each task.
  - Some examples of software are web browsers, games, word processors, and operating systems.

# 2. Introduction - Hardware

- Hardware is any part of your computer that has a **physical structure.**

# 2. Introduction - Hardware (cont.)

**Computer Case:**

- The metal and plastic box that **contains the main components** of the computer.

- It houses the motherboard, central processing unit (CPU), the power supply, and more:

    1. **Optical Disc Drive:** Often called a **CD-ROM** or **DVD-ROM drive.**

    2. **Power Button.**

    3. **Audio In/Audio Out.**

    4. **USB (Universal Serial Bus) Port.**

# 2.Introdcution - Hardware Computer case (cont.)

1. **Power Socket.**
2. **Audio In/Audio Out.**
3. **Ethernet Port.**
4. **USB Ports.**
5. **Monitor Port.**
6. **Expansion Slots.**
7. **Serial Port**. “transfers in or out one bit at a time ”
8. **PS/2.** “for connecting some keyboard and mice”
9. **Parallel Port (or Printer Port).**

# 2. Introduction - Software

- An **operating system** is:
  - The **most important software** that runs on a computer.
  - It manages the computer's **memory**, **processes**, and all of its **software** and **hardware**.
  - It also allows you to **communicate** with the computer without knowing how to speak the computer's "language." **Without an operating system, a computer is useless**.

# 2. Introduction – Disk Operating Systems (DOS)

Difference between DOS and Windows Operating Systems

- DOS uses CLI (command line interface), whereas Windows used GUI (graphical user interface).
- DOS does not support networking, Windows does.
- DOS is a single user OS, Windows is Multiuser.
- DOS is a single tasking OS, Windows is Multitasking.
- DOS is a single threading OS, Windows is a Multithreading.

# 3. Microsoft Windows Operating System

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# Disk Organization

- Before we understand how Windows Operating system works, we should learn how the hard disk is organized.

- **File**: A computer file is a block of arbitrary information, or resource for storing information, which is available to a computer program and is usually based on some kind of durable storage.

- Computer files can be considered as the modern counterpart of paper documents which traditionally are kept in offices and libraries.

- There are only two types of file operations: read and write.

# Disk Organization

- A **filename extension**: is a suffix (separated from the base file name by a dot) to the name of a computer file applied to indicate the encoding (file format) of its contents or usage.

- Examples:

  **MP3** - MPEG Audio Layer 3.

  **MPEG** - Animation file format.

  **PDF** - Portable Document File by Adobe.

  **TXT** - Text Format.

  **WAV** - Waveform sound file.

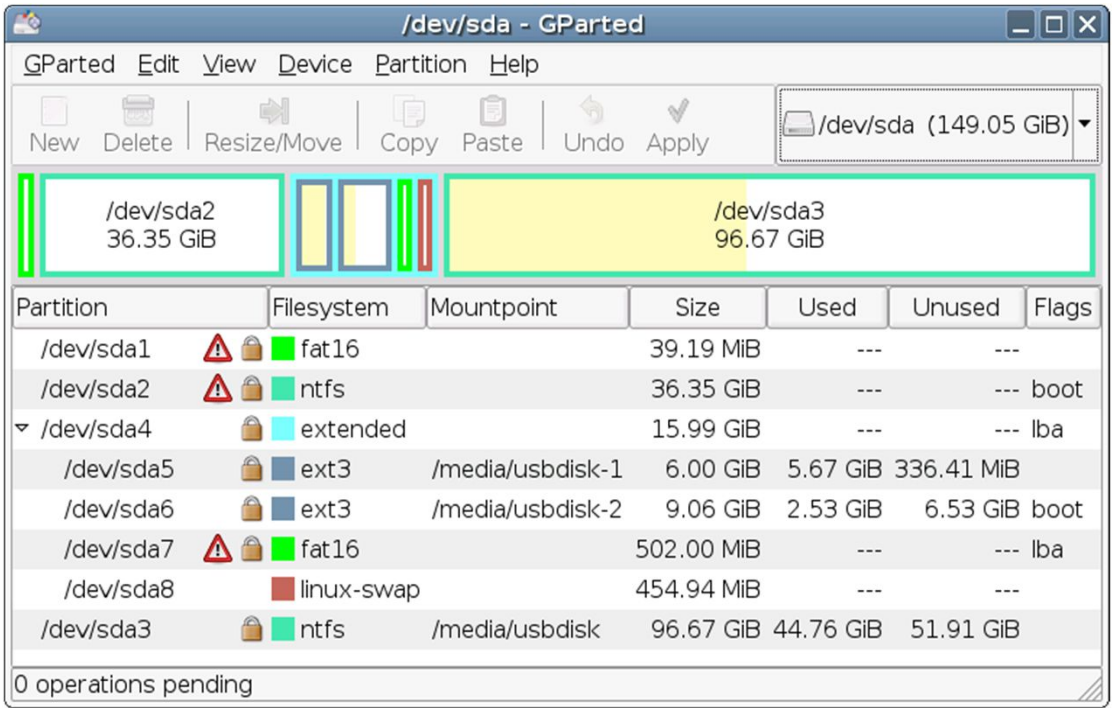
# Disk Organization

- **Folder**:
  - Just like real world folders, folders on your hard drive store files.
  - These files can be documents, programs, scripts, libraries, and any other kind of computer file you can think of.
  - Folders can also store other folders, which may store more files or other folders, and so on.

# Disk Organization

- **Disk partitioning** is the act of dividing a hard disk drive into multiple logical storage units referred to as *partitions*, to treat one physical disk drive as if it were multiple disks.

A **partition editor software** program used to create, resize, delete, and manipulate these partitions on the hard disk.



# Windows Operating System (Desktop)

- **Desktop** refers to the main background area (in this example the blue area).

- **Icons** are small graphical images that can represent your computer's programs, files, folders and printers amongst other things.

- **Recycle Bin:** When you delete a file, Windows will place the file into the recycle bin (instead of deleting it altogether).

- The **start** button is a very important part. By Clicking on the start button opens up what is called the start menu.

- **Taskbar**: its main use is to *switch between* any open programs or documents.

- **Clock** sits on the tray and displays the system time.

# Windows Operating System (Shut Down Options)

- The **Shut Down** mode switches off your machine.
- The **Restart** down mode switches off and then switches it on.
- The **Sleep** mode doesn't really shutdown your PC, it just stores whatever open application into the *RAM* memory and reduces all the computer component to a low power mode.
- In the **Hibernation** mode, the current state of your computer plus any of your open applications will be stored on the *hard disk*. Once all the information was written into the hard disk the PC will *switch off*. When you switch on your computer, the information will be pulled out from your hard disk and restored to the state which you left it before.
- In **Log off** windows pauses at the Welcome screen and makes you select a user so the system knows who is logged in.

# Windows Operating System (Desktop Properties)

For ***Windows 7*** do the following:

Right click on the desktop and choose **Personalize.**

**Or**

Open control panel and choose **Appearance and Personalization**

**→Personalization**

- Background.
- Windows Color.
- Sounds.
- Screen Saver.
- Taskbar and Start Menu

**Also you can change:**

- Mouse Pointer (Button ( configuration / single versus double click / dbl click speed ))
- Account Picture.

**→Display**

- Screen area (resolution).

# Windows Operating System (Control Panel)

→ **Clock, Language, and Region**

- Date & Time
  - Change the Date
  - Change the Time
  - Activating from the task bar

→**System**

- General (Computer Specifications).
- Hardware ( Hardware wizard / Device Manager )

→**Programs**

- Add or Remove Programs and Windows Components.

→**Ease of Access Center**

- Keyboard and Mouse properties
- Narrator
- Magnifier

# Windows Operating System (Disk Organization)

- Creating Folders
  - Using File menu
  - Using Right Click
- Copying & Moving Files & Folders
  - Using Edit menu
  - Using Right Click
  - Using Toolbar buttons
  - Using Keyboard
  - Using Drag & Drop
- Selecting Multiple items
  - Consecutive ( Shift + cursor keys )
  - Separated ( Ctrl + Mouse clicks )
  - Select All (edit menu Or keyboard )
- Desktop is a folder
  - Locate the folder
  - View the contents
- Using Windows Explorer
  - Tree View
    - + and – to expand and compress the trees
  - List View of what

# Windows Operating System (Disk Organization)

- Toolbars of windows
  - Back / Forward / Up
  - Address

- Search for files & folders
  - Containing text
  - Type
  - Stop search
  - Date
  - Size

- Adding Shortcuts in folders
  - Using file new
  - Using right click then moving it
  - Using right click then send to (desktop case)

# BREAK (10 Min.)

# 4. The Internet

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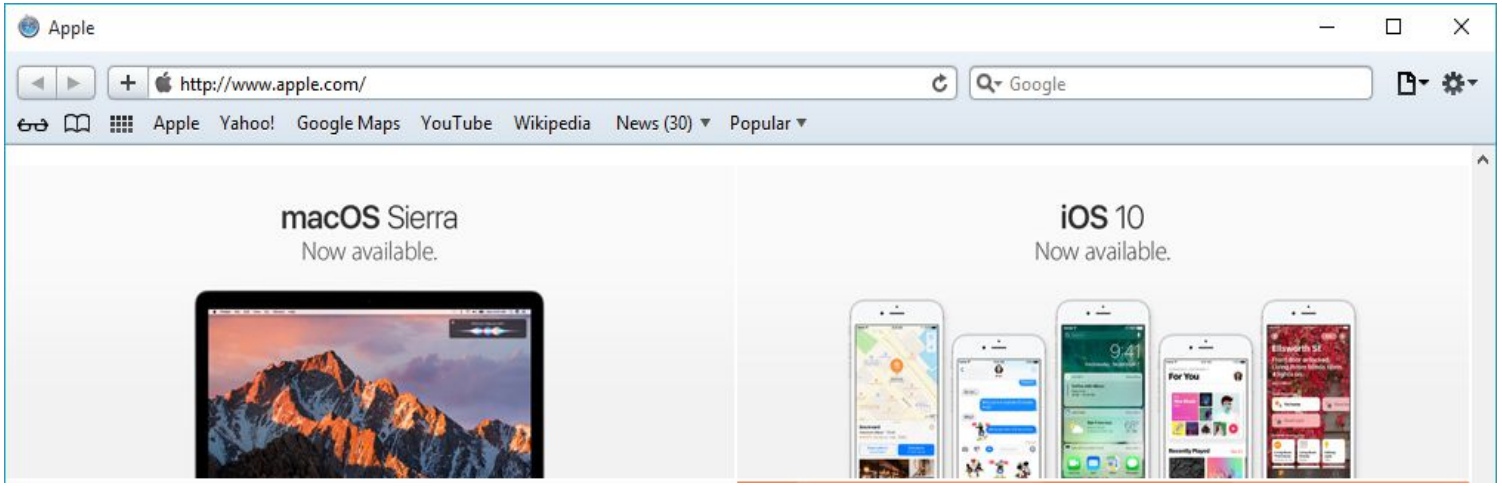
# What is URL and Browser?

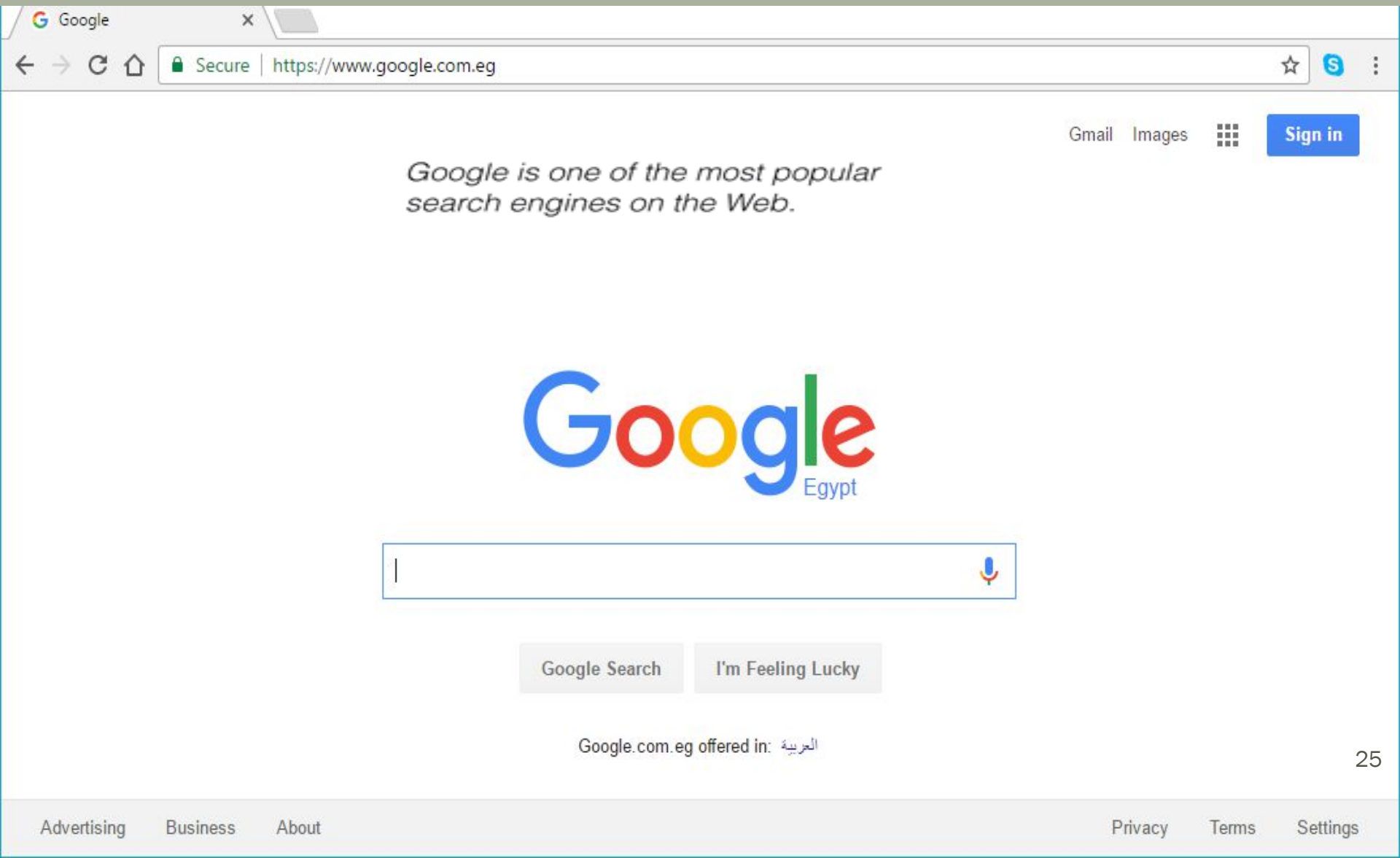
- URL: Uniform Resource Locator.

  https://www.facebook.com/

- Browser : A software program which is used to show web pages.



# Google Search Engine



# Google Search Engine

- The Google ***web search engine*** is the company's most popular service.

- According to market research in November 2009, Google is the ***dominant search engine*** in the US market.

- Google indexes billions of Web pages, so that users can search for the information they desire, through the of keywords and operators, although at any given time it will only return a maximum of ***1,000 results*** for any specific search query.

# Lets go back in time! 1998

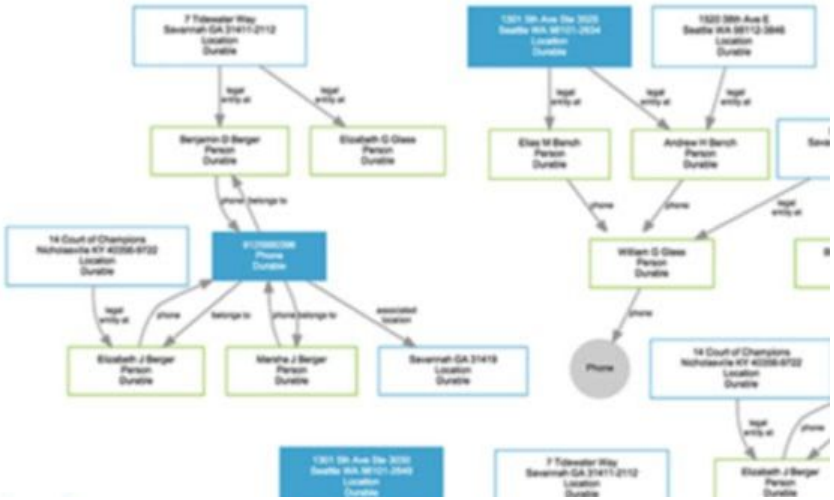
- What exactly is Google!

1993 Aliweb Launch
1994 WebCrawler Launch
1994 Infoseek Launch
1994 Lycos Launch
1995 AltaVista Launch
1995 Excite Launch
1996 Dogpile Launch
1996 Inktomi Founded
1996 Ask Jeeves Founded
1997 Northern Light Launch
**1998 Google Launch**
1999 AlltheWeb Launch
2000 Teoma Founded
2003 Objects Search Launch
2004 Yahoo! Search Final launch (first original results)
2004 MSN Search Beta launch
2005 MSN Search Final launch
2005 Kosmix Beta Launch
2006 Quaero Founded
2006 Blorby Launch

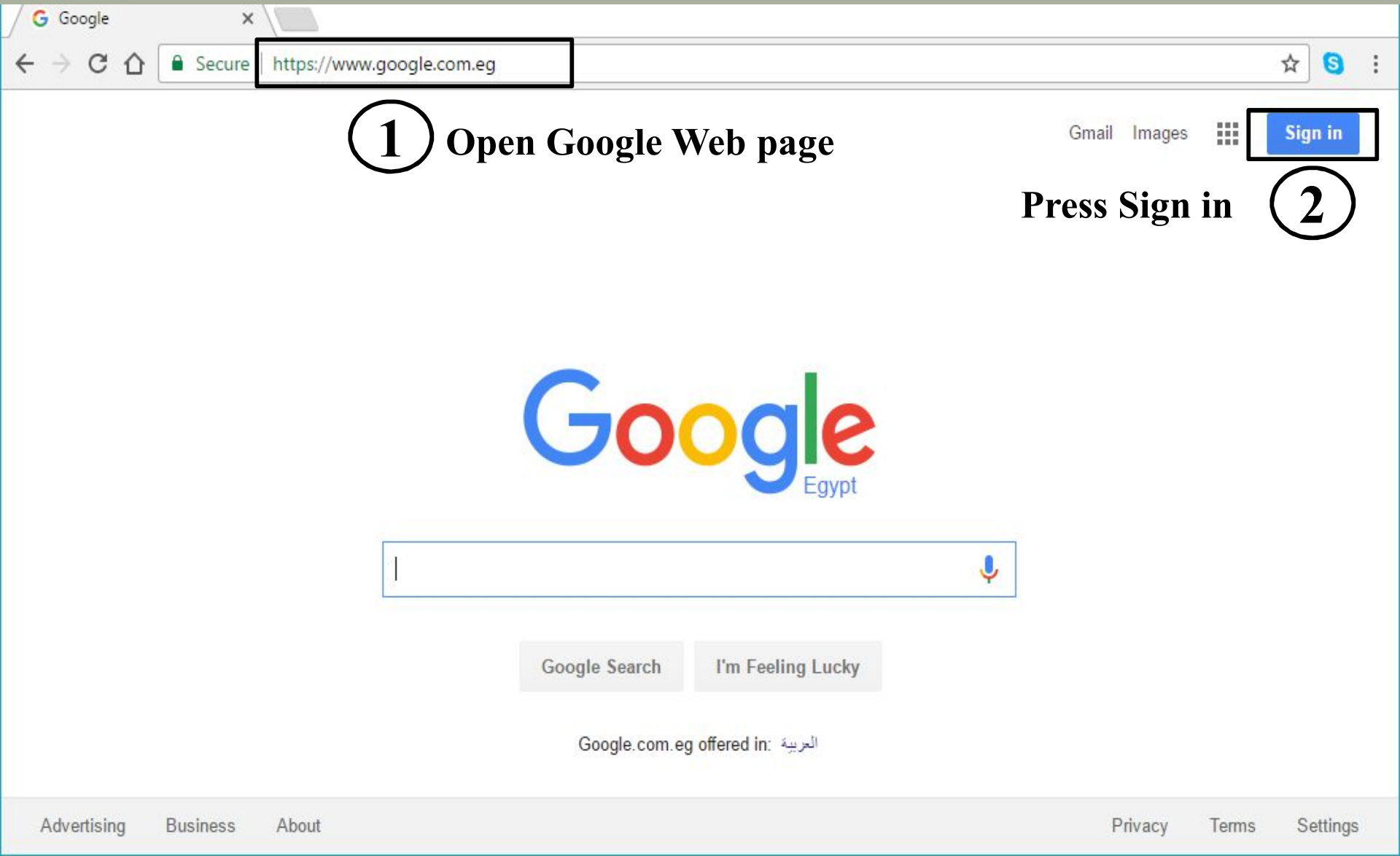
# What made Google so great?

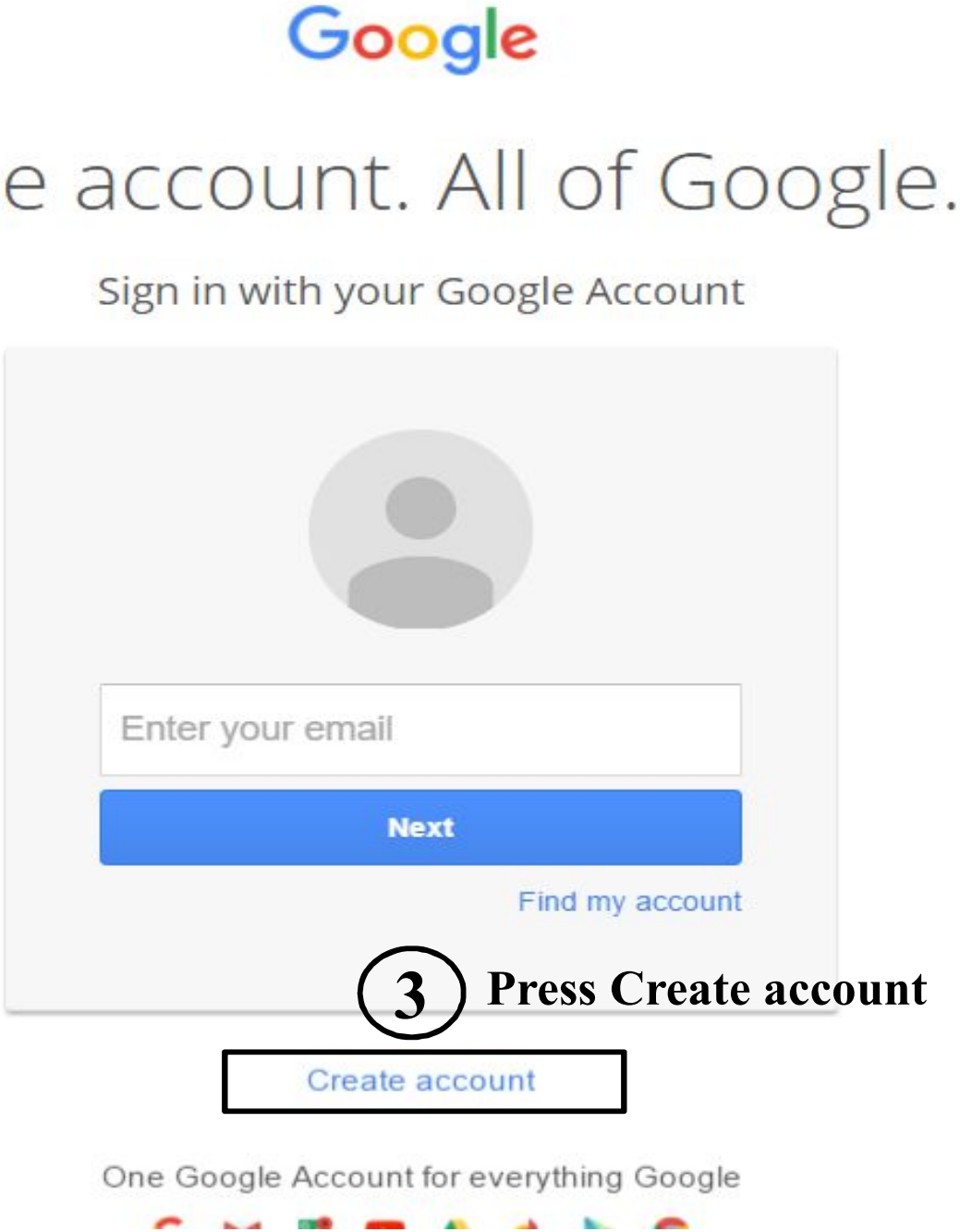
- Page Rank

- Scalability



# How to create a Google account




Google
One account. All of Google.
Sign in with your Google Account
Enter your email
Next
Find my account
3
Press Create account
Create account
One Google Account for everything Google

# Create your Google Account

## One account is all you need

One free account gets you into everything Google.

## Take it all with you

Switch between devices, and pick up wherever you left off.

**4** **Fill These Information**

**Name**

First | Last

**Choose your username**

@gmail.com

I prefer to use my current email address

**Create a password**

**Confirm your password**

**Birthday**

Month | Day | Year

**Gender**

I am...

**Mobile phone**

+20

Switch between devices, and pick up wherever you left off.

**Confirm your password**

**Birthday**

Month | Day | Year

**Gender**

I am...

**Mobile phone**

+20

**Your current email address**

**Location**

Egypt (مصر)

5

Next step

**Press Next step**

Learn more about why we ask for this information.

Take it all with you

Switch between

# Privacy and Terms

By choosing "I agree" below you agree to Google's Terms of Service.

You also agree to our Privacy Policy, which describes how we process your information, including these key points:

## Data we process when you use Google

- When you use Google services to do things like write a message in Gmail or comment on a YouTube video, we store the information you create.
- When you search for a restaurant on Google Maps or watch a video on

**Press I Agree** (6)

CANCEL I AGREE

Learn more about why we ask for this in

Google

*Access apps, check notifications, and edit your account*

# Welcome, .....

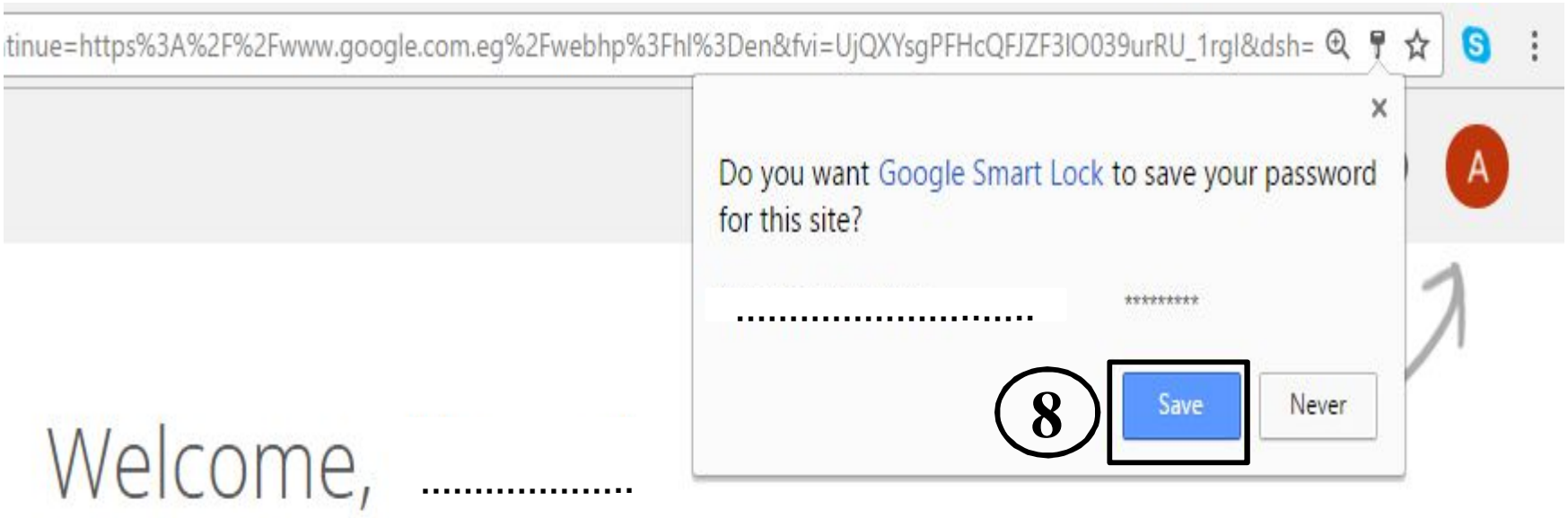
Your new email address is ..... @gmail.com

Thanks for creating a Google Account. Use it to subscribe to channels on YouTube, video chat for free, save favorite places on Maps, and lots more.

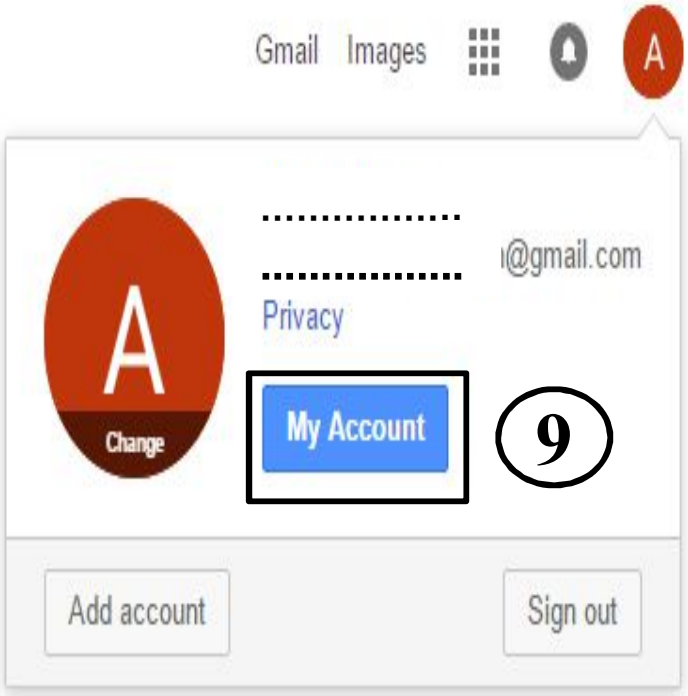
Continue

**7 Press Continue**

# Saving The Password




**If you want you can save the password using the browser like: Google Smart lock in Chrome**



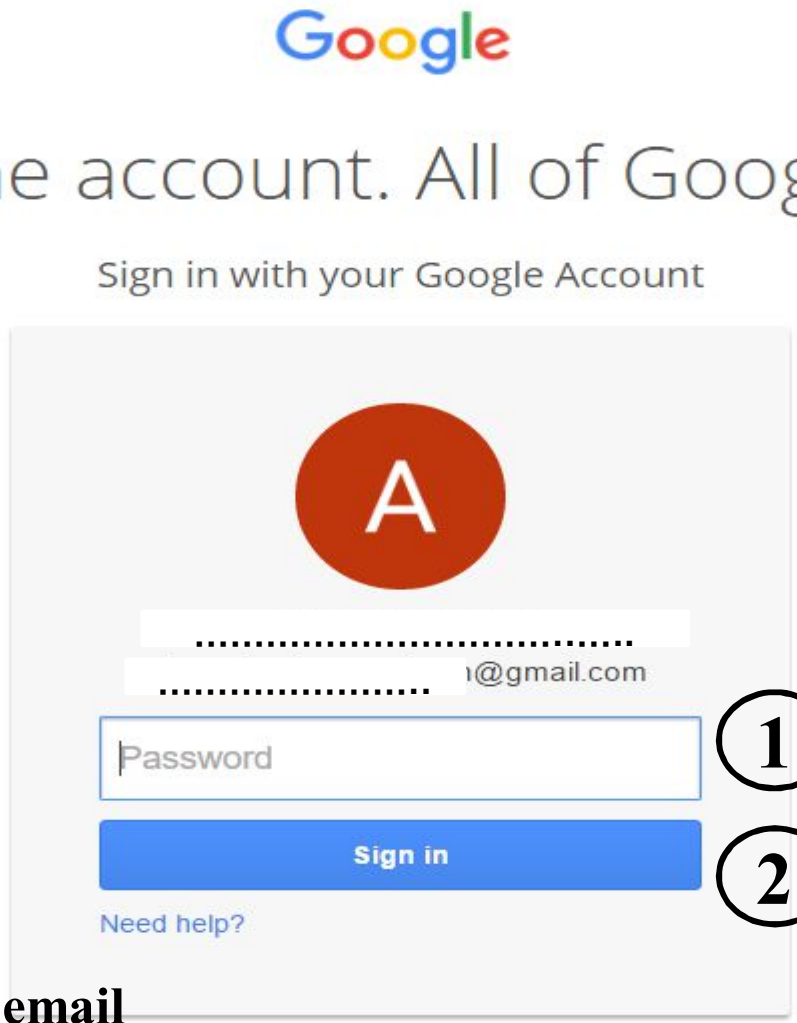

**Manage your Account Settings**

Google
Egypt

Google Search
I'm Feeling Lucky

Google.com.eg offered in: العربية

# Sign in using the new account




1 **Enter Password**

2 **Press Sign in**

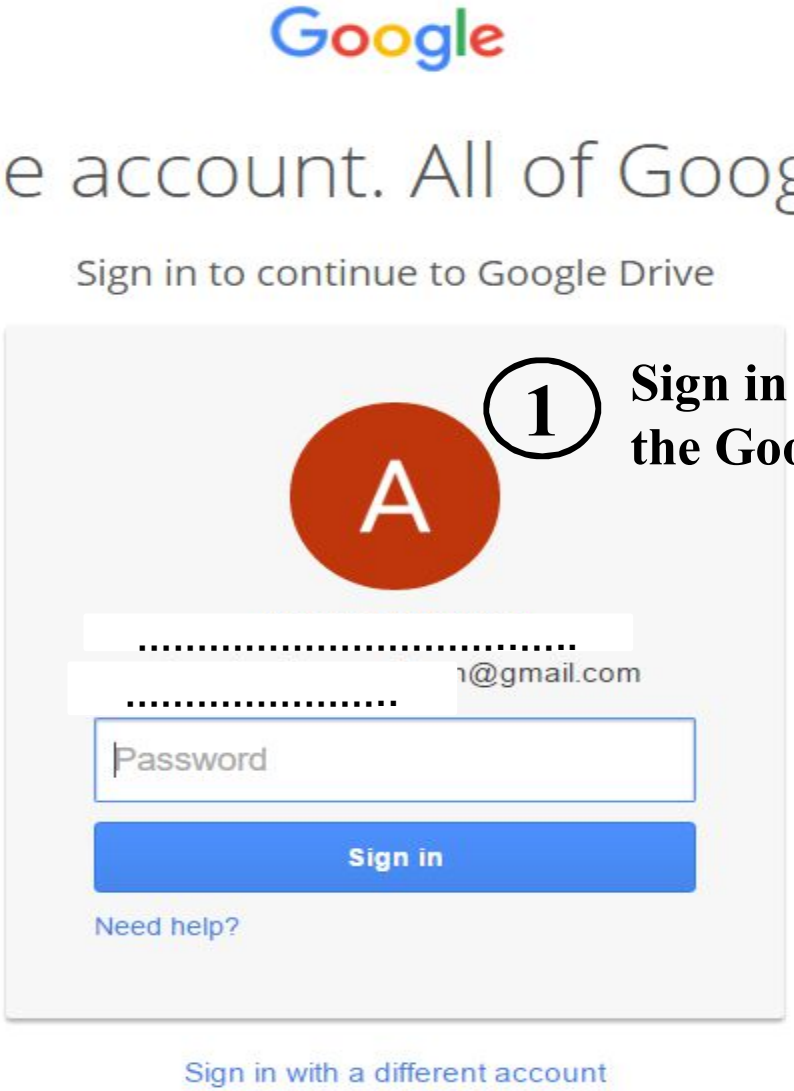
**If it is not your email**

# How to Upload / Download Files Using Google Drive

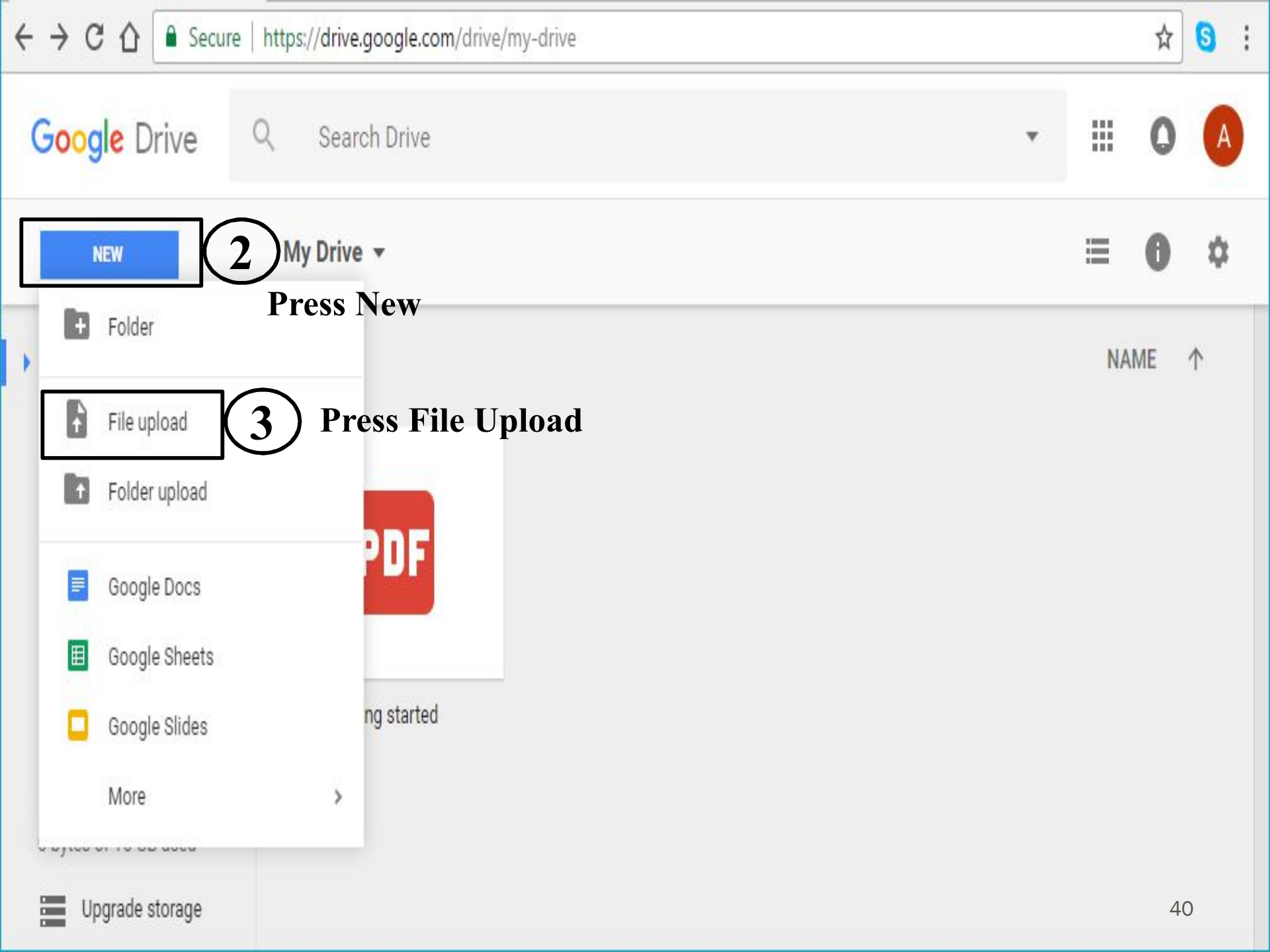
- **Google Drive** is a cloud storage service that allows you to store your documents, photos, videos, and more online.

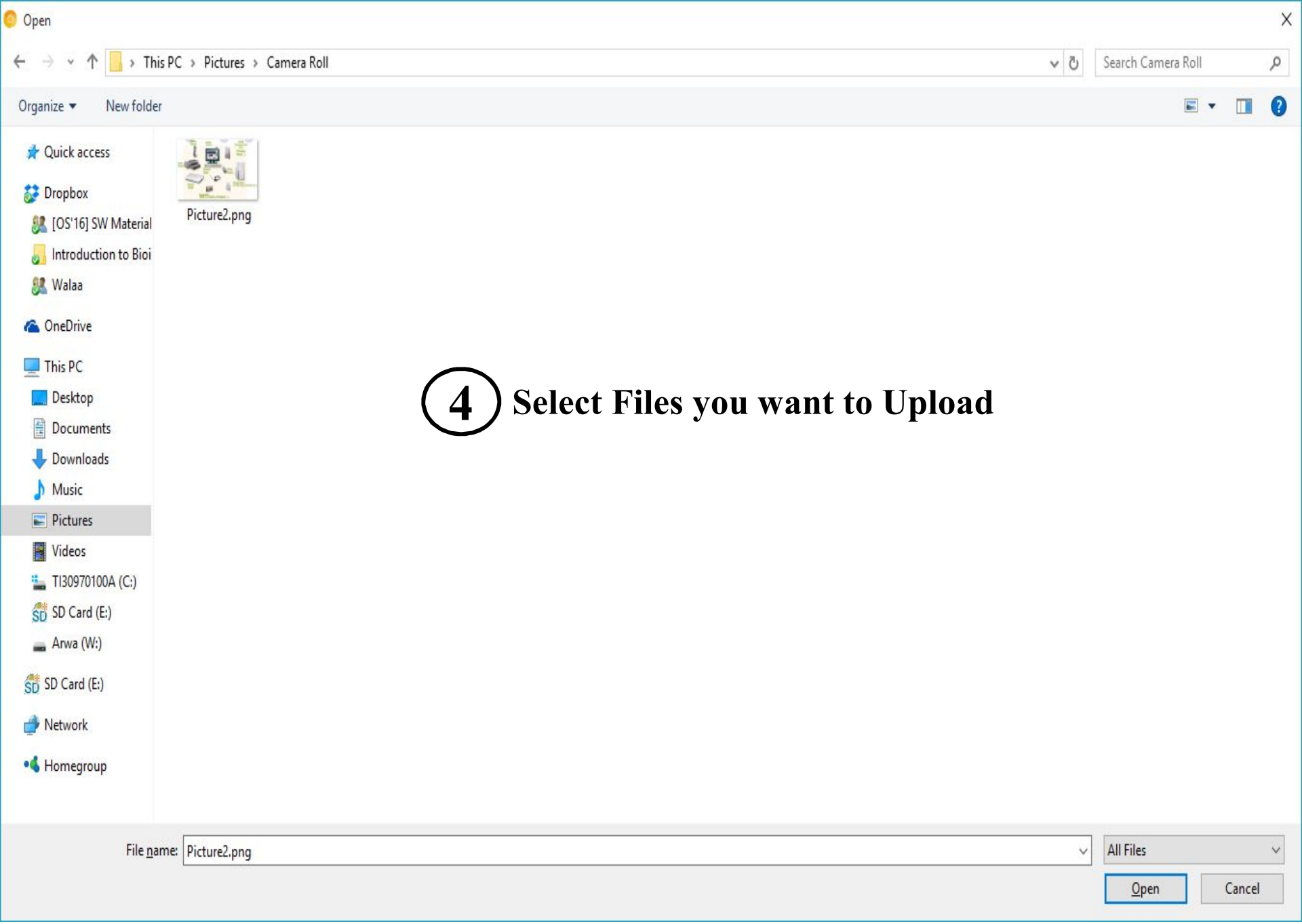
- From Drive, you can also use *Google Docs*, *Google Sheets*, and other applications to create and edit various types of files.

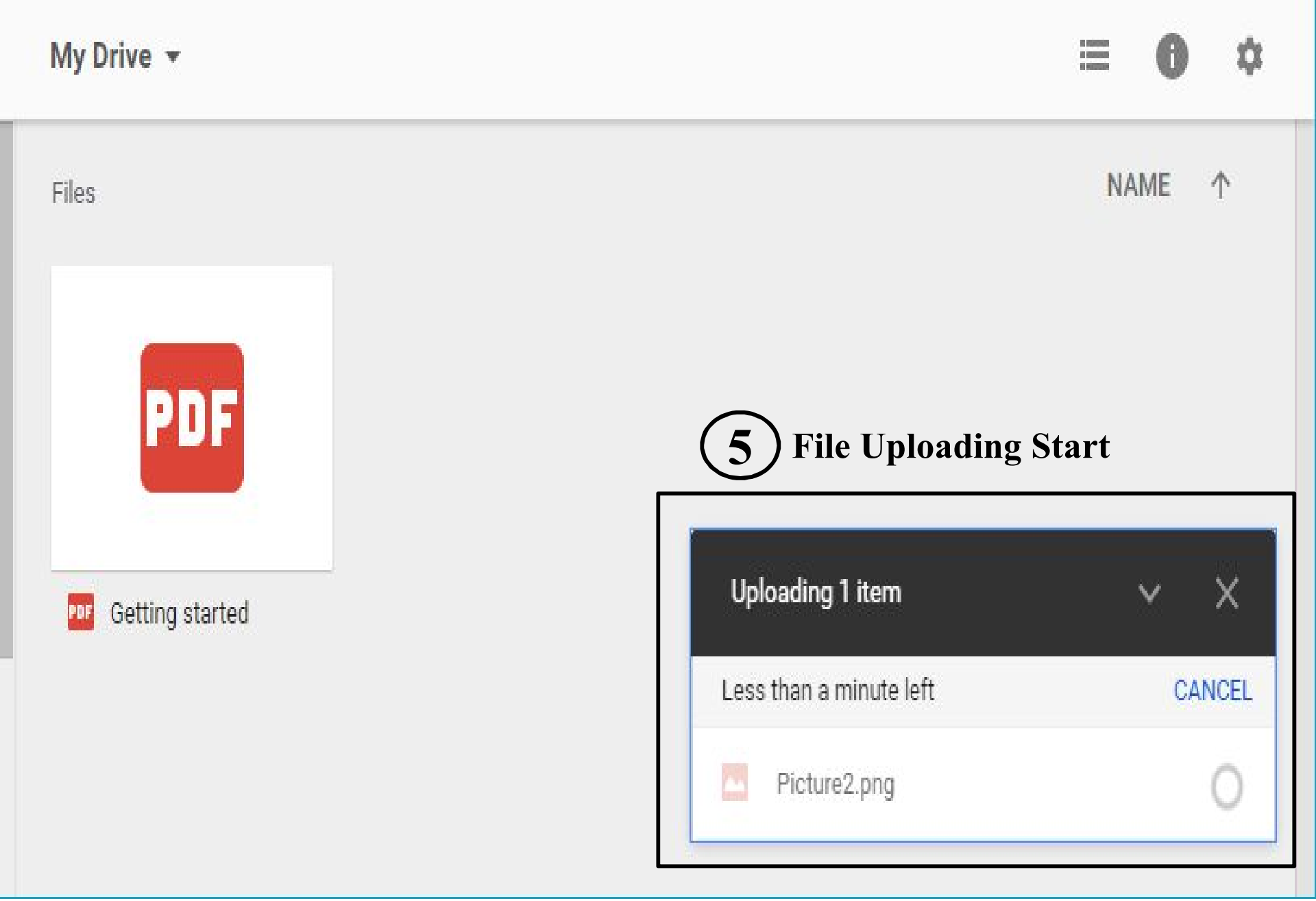
# Upload files

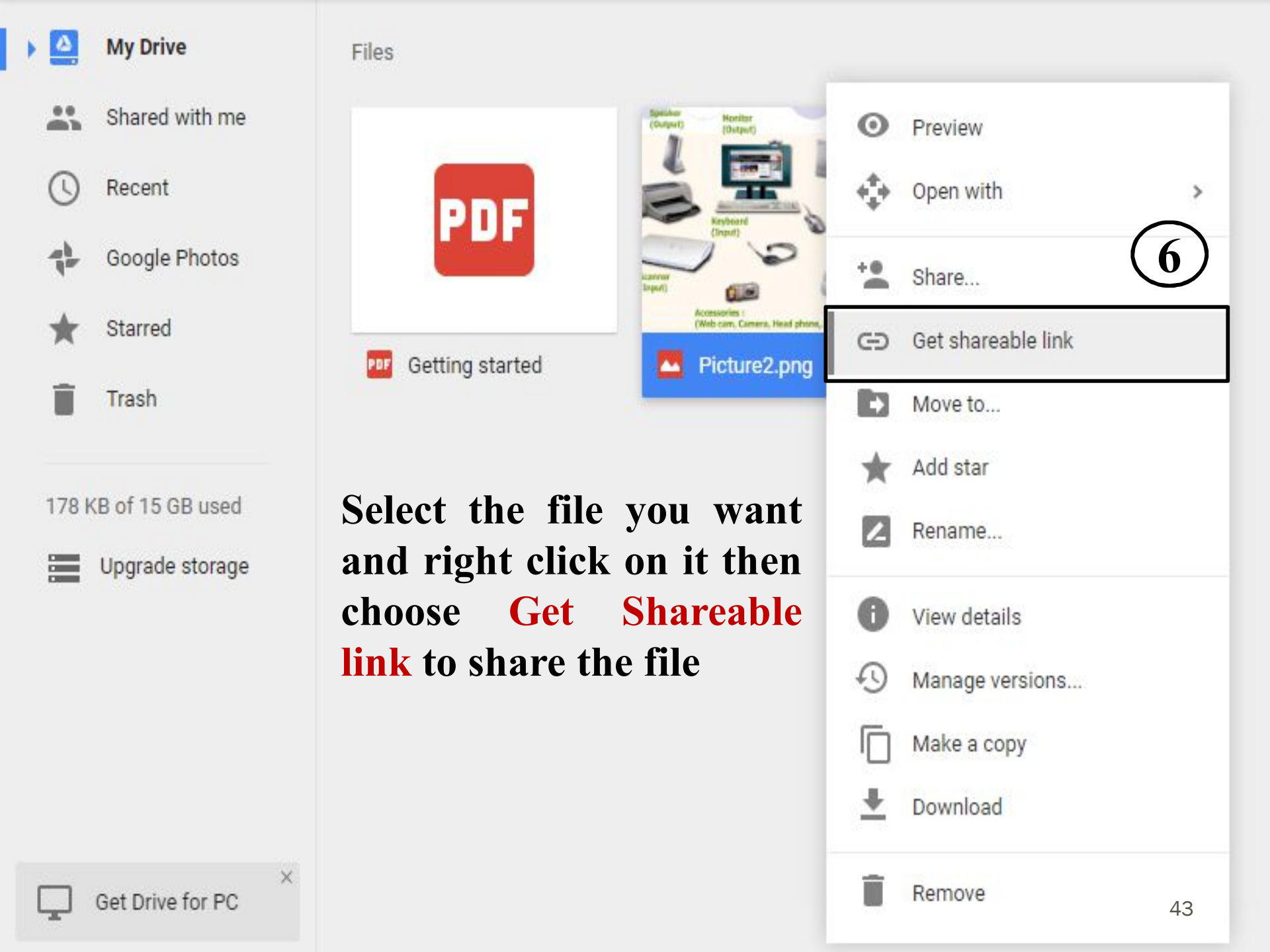


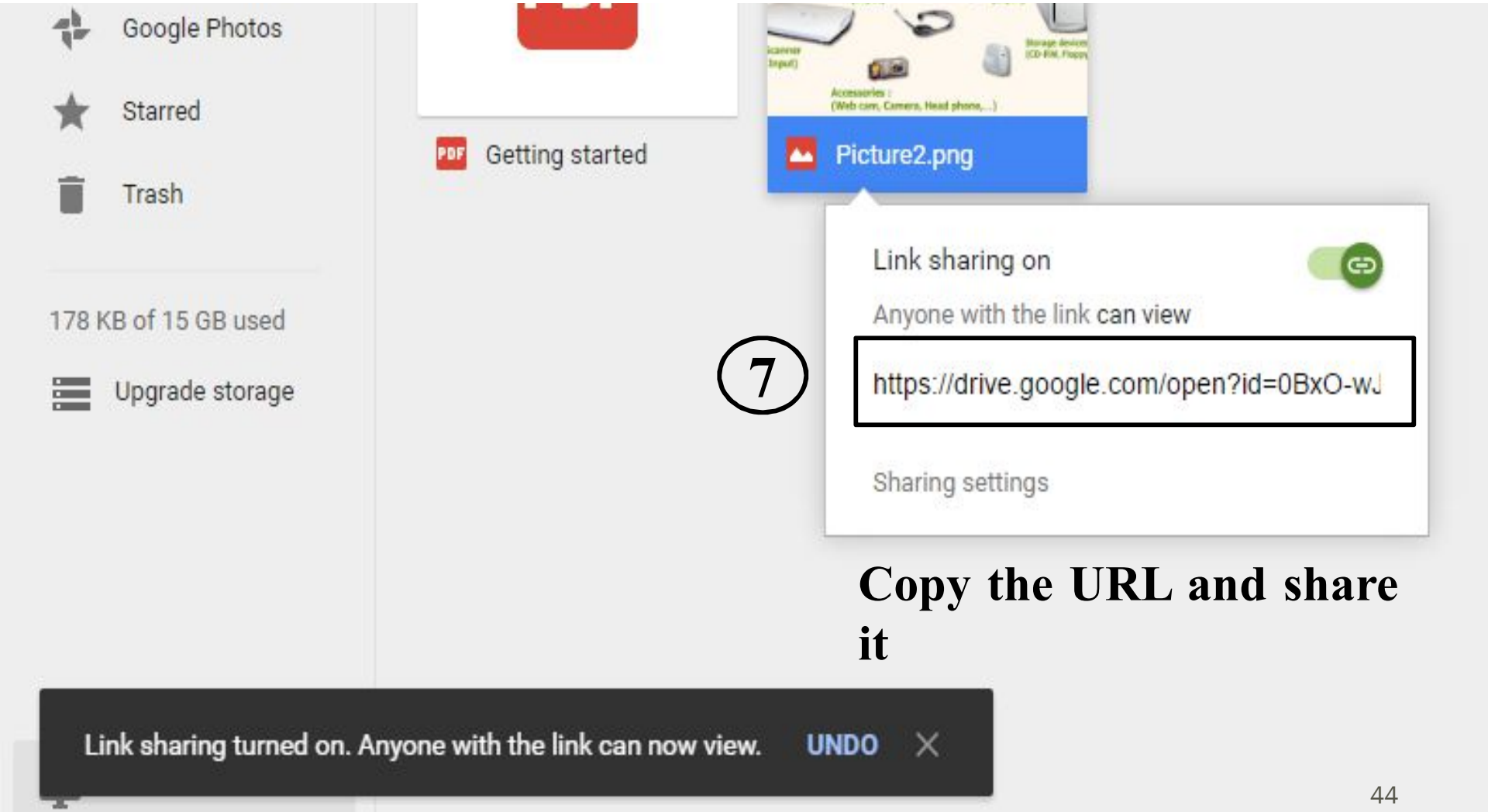

1 **Sign in to Google Drive using the Google account**


Secure
https://drive.google.com/drive/my-drive
Google Drive
Search Drive
NEW
2
My Drive
Press New
Folder
File upload
3
Press File Upload
Folder upload
Google Docs
Google Sheets
Google Slides
More
NAME
PDF
ng started
Upgrade storage

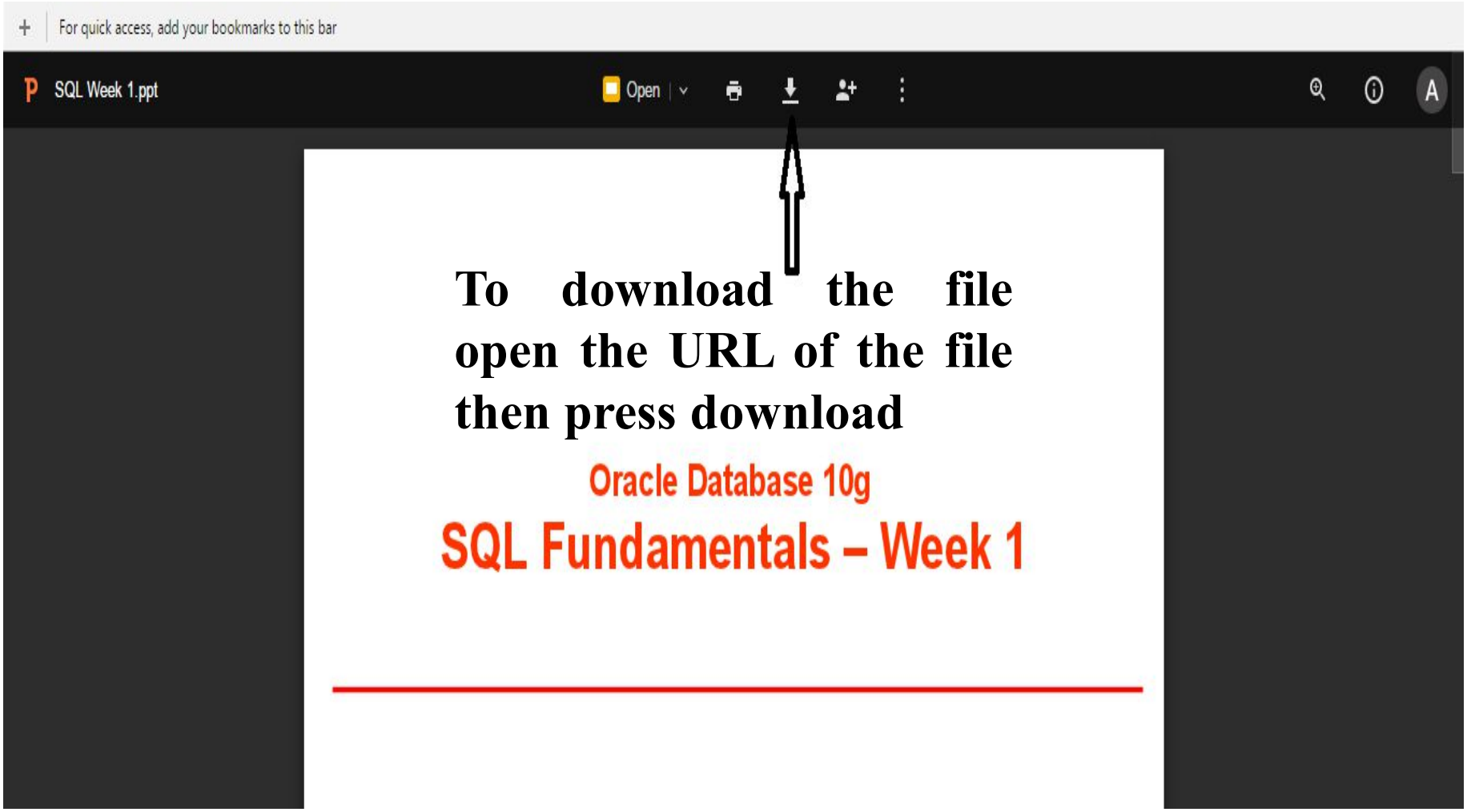

Open
This PC › Pictures › Camera Roll
Search Camera Roll
Organize
New folder
Quick access
Dropbox
[OS'16] SW Material
Introduction to Bioi
Walaa
OneDrive
This PC
Desktop
Documents
Downloads
Music
Pictures
Videos
TI30970100A (C:)
SD Card (E:)
Arwa (W:)
SD Card (E:)
Network
Homegroup
Picture2.png
4
Select Files you want to Upload
File name:
Picture2.png
All Files
Open
Cancel


My Drive
Files
NAME
PDF
Getting started
5 File Uploading Start
Uploading 1 item
Less than a minute left
CANCEL
Picture2.png


My Drive
Shared with me
Recent
Google Photos
Starred
Trash
178 KB of 15 GB used
Upgrade storage
Get Drive for PC
Files
PDF
Getting started
Picture2.png
Preview
Open with
Share...
Get shareable link
Move to...
Add star
Rename...
View details
Manage versions...
Make a copy
Download
Remove
6
Select the file you want and right click on it then choose Get Shareable link to share the file


Google Photos
Starred
Trash
178 KB of 15 GB used
Upgrade storage
Getting started
Picture2.png
Link sharing on
Anyone with the link can view
https://drive.google.com/open?id=0BxO-wJ
Sharing settings
7
Copy the URL and share it
Link sharing turned on. Anyone with the link can now view.
UNDO

# How to download



# Thank You