🌐 Internet Basics

The internet is a vast network that connects computers worldwide. To access the countless information, images, videos, and websites on this network, you need a special program: the web browser. It is your personal gateway to the digital world.

🧭 Opening and Using a Web Browser

🚗 What is a Web Browser?

Imagine the internet as a vast road network, the "data highway." A **web browser** is your car that you drive on this highway. Without this "car," you cannot visit the various places (websites) on the internet. It is the most important tool for surfing the World Wide Web.

The Most Popular Browsers

Google Chrome

Developer: Google

Icon: [Placeholder for Google Chrome icon]

Mozilla Firefox

Developer: Mozilla Foundation

Icon: [Placeholder for Mozilla Firefox icon]

Microsoft Edge

Developer: Microsoft

Icon: [Placeholder for Microsoft Edge icon]

Apple Safari
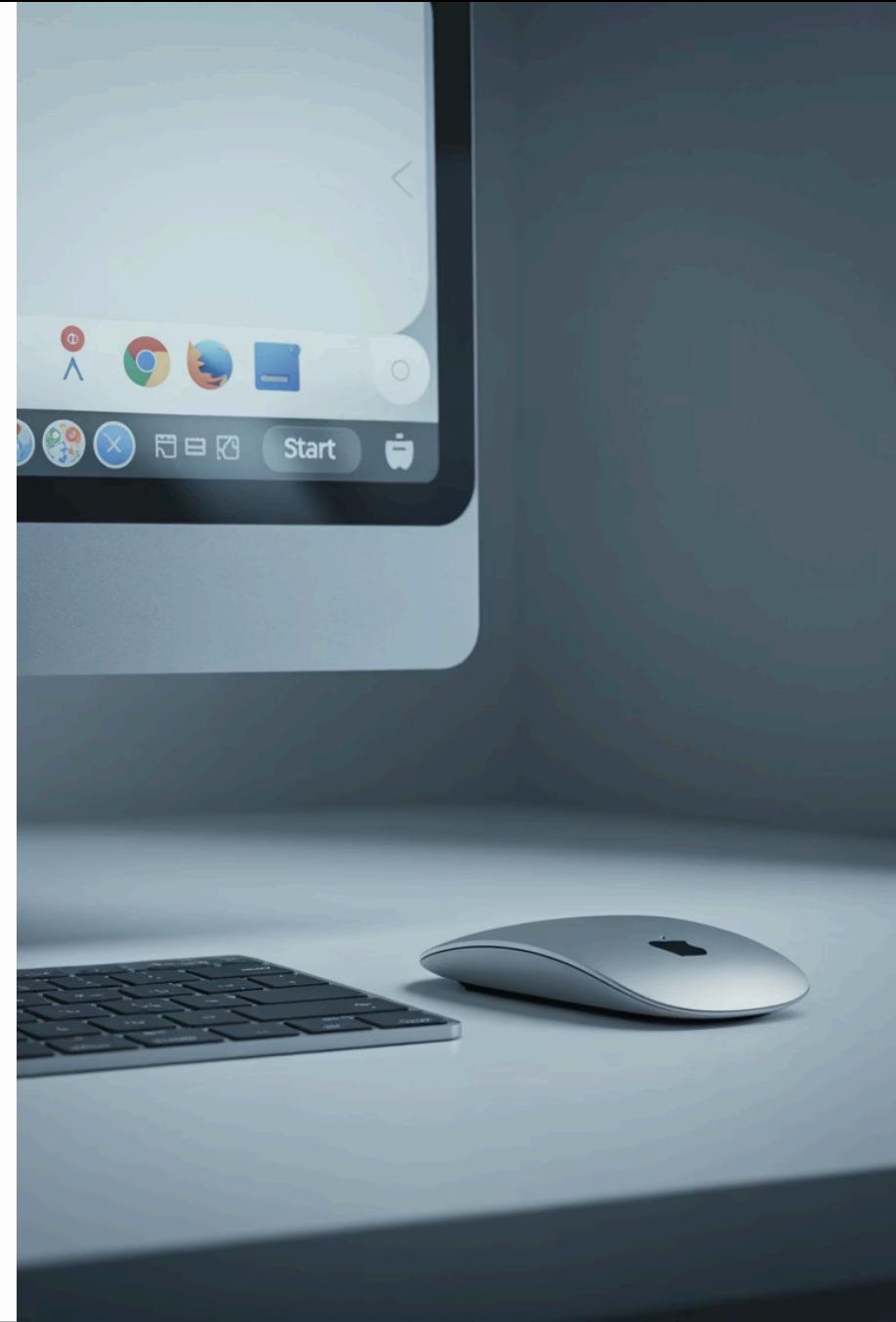
Developer: Apple

Icon: [Placeholder for Apple Safari icon]

All serve the same purpose but sometimes look a little bit different.

🔑 Starting and Understanding Your Browser

You start a browser just like any other program: by double-clicking its icon on your desktop, a single click on its icon in your taskbar (the bar at the bottom of your screen), or via the Start menu.

Understanding Important Browser Elements

01

📍 Address Bar

This is the long white bar at the very top. Here you enter the exact "address" of a website (e.g., www.google.com) to go directly there. It also functions as a search bar.

02

📑 Tabs

At the top, you'll see small "tabs." Each tab is like a separate page in a book. You can have multiple websites open simultaneously in different tabs and switch between them. The small "+" symbol opens a new, empty tab.

03

⬅️➡️ Arrow Keys (Back/Forward)

The left arrow takes you back to the last visited page. The right arrow takes you forward again.

04

🔄 Refresh Button

This round arrow reloads the current webpage. This is useful if a page isn't displaying correctly or if you want to see the latest content (e.g., on a news site).

🔍 Effectively Using Search Engines

You don't always know the exact address of a website. Most of the time, you're looking for information, a product, or an answer to a question. This is where search engines come in.

🤖 What is a Search Engine?

A **search engine** is like an extremely smart librarian for the entire internet. You tell it what you want to know (your search query), and in seconds, it searches billions of web pages and returns an organized list of the most relevant results. The best-known search engine is Google, but there are others like DuckDuckGo or Bing.
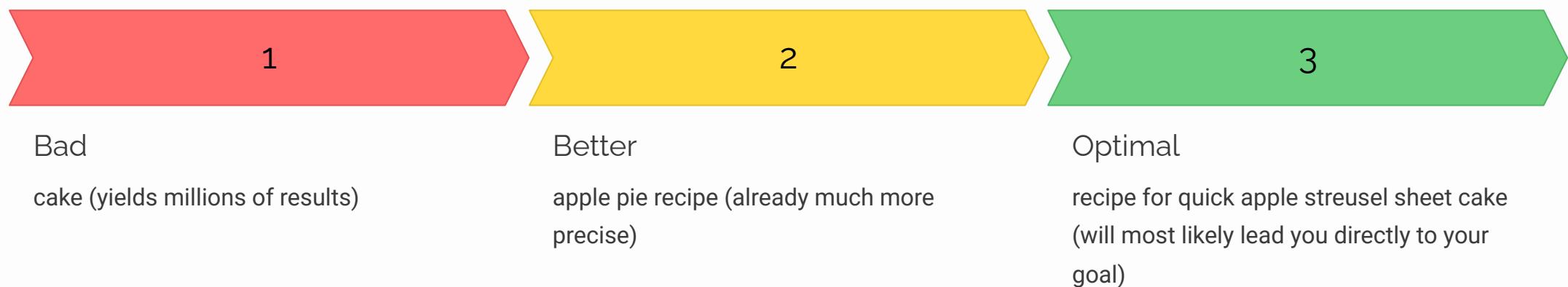
You usually don't have to go to the search engine's website. You can enter your search query directly into your browser's **address bar** and press Enter.

✨ Tips for Better Search Results

Simply entering a single word often works. However, with a few small tricks, you'll get exactly the results you're looking for much faster.

1. Be as specific as possible

1	2	3

Bad

cake (yields millions of results)

Better

apple pie recipe (already much more precise)

Optimal

recipe for quick apple streusel sheet cake (will most likely lead you directly to your goal)
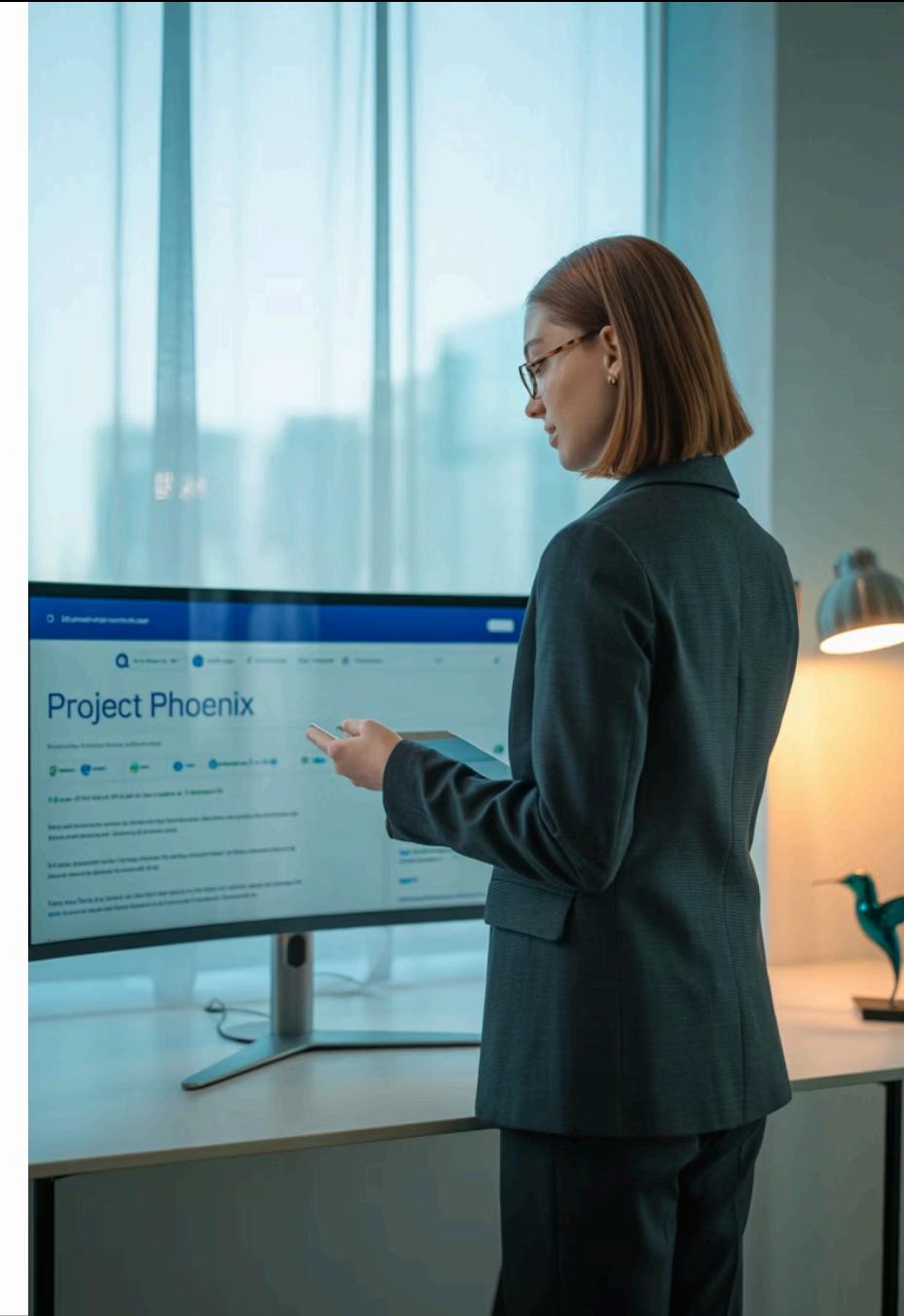
The more relevant keywords you use, the better the result will be.

2. Ask complete questions

Modern search engines understand normal sentences. You can phrase your question just as you would ask a human.

- **Example:** How high is the Brocken in the Harz Mountains?
- **Example:** When will the sun shine tomorrow in Merseburg?

3. Use Quotation Marks (" ") for Exact Phrases

Exact Search with Quotation Marks

If you are looking for a very specific phrase, put it in quotation marks. The search engine will then only look for pages where the words appear in that exact order.

- **Example:** "Once upon a time in a faraway land" finds exactly that fairy tale opening.
- **Example:** "Error Code 404" specifically searches for this message.

4. Exclude Words with the Minus Sign (-)

Exclude Unwanted Results

If you repeatedly encounter unwanted results in your search, you can exclude them by placing a minus sign directly before the word.

Example: Animal instead of Car

jaguar speed -car gives you results for the speed of the animal Jaguar, but excludes results for the car brand.

Example: Without a Specific Brand

best phones -apple shows you smartphone rankings without iPhones.

Search the web

Q | Search the web O

5. Use the Search Engine's Filter Tools

Every search engine offers additional filters above the search results. These allow you to narrow down your search to specific areas.

Images

Shows only image results for your search.

News

Finds only current news articles on the topic.

Videos

Lists relevant videos from platforms like YouTube.

Tools/Search Settings

Here you can often filter by time (e.g., "last 24 hours") or set the language.

🛡️ Secure Browsing

Secure browsing means that you can move freely on the internet without having to worry about someone stealing your personal data, your computer being infected with a virus, or falling for scammers. It's about being vigilant and knowing the warning signs – just as you look left and right in road traffic before crossing the street.

✅ Identifying Secure and Insecure Websites

Not every website that looks professional is trustworthy. However, there are a few very clear signs you can always look for to separate the wheat from the chaff.

🔒 The Magic Lock: Understanding HTTPS

This is the **most important feature** for a secure website. Always examine your browser's address bar very carefully.

Secure ✅

You see a **closed padlock symbol** 🔒 and the address begins with https://. The "s" stands for "secure". This means the connection between your computer and the website is encrypted.

Insecure ❌

You see an **open lock**, a **warning triangle** ⚠️, or the address only begins with http:// (without the "s").

The Postcard Analogy

HTTP = Postcard

An http:// connection is like a **postcard**. Anyone who intercepts it on its way (e.g., on public Wi-Fi) can read everything you enter.

HTTPS = Sealed Letter

An https:// connection is like a **sealed letter**. Only you and the recipient (the website) can read the content.

🗌 **Important:** Never enter passwords or banking details on a page that does **not** have https:// with a closed lock!
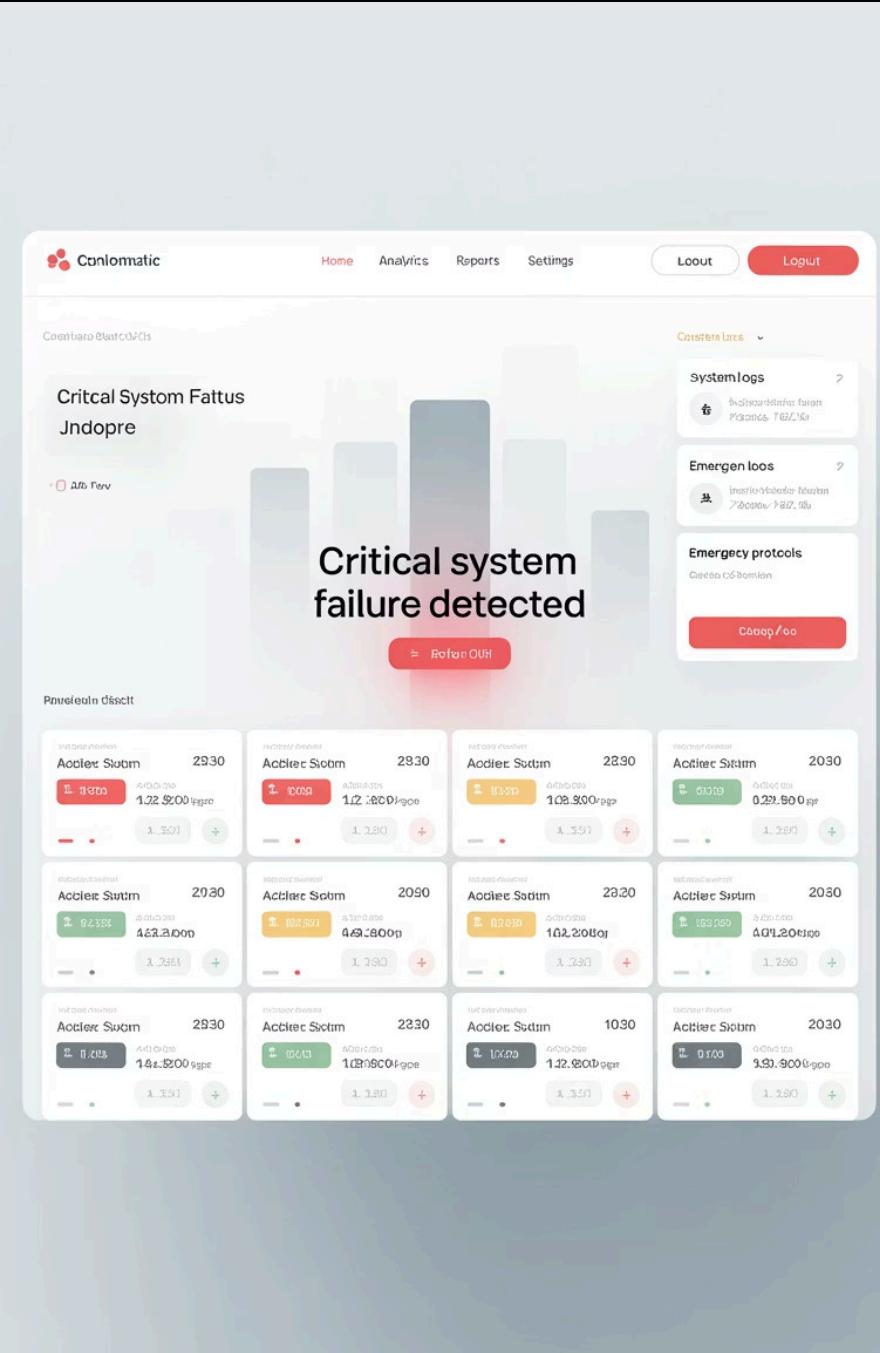
🧐 Looking at the Address (URL)

Scammers often try to fake the addresses of well-known websites. They swap letters or add small changes that are easy to overlook.

Real Address (Example)	Fake Address (Example)	What to Look Out For
www.google.com	www.go0gle.com	The letter "o" has been replaced by the digit "0".
www.bankofamerica.com	www.bankofamerica-login.com	An addition that sounds legitimate but does not belong to the official site.
www.amazon.com	www.amazoon.com	An extra letter that is easily overlooked.

Tip: If you receive an email from your bank or an online store, do not click on the link in the email. Instead, type the address manually into your browser.

🚩 Warning Signs of an Unsafe Website

Your gut feeling is often a good guide. If a website seems strange to you, it probably is. Pay attention to these red flags:

→ Intrusive Pop-up Windows

New windows constantly pop up with ads or warnings like "Your computer is in danger!".

→ Poor Design and Many Errors

The site looks unprofessional and has many spelling and grammar mistakes.

→ Missing Legal Notice

Every reputable website in Germany must have a legal notice stating who is responsible for the site (name, address).

→ Immediate Download Requirement

The site asks you to install a program to view something. Be extremely careful here!

🛡️ Basic Data Protection and Precautionary Measures While Surfing

Online safety also has a lot to do with how you behave and how you handle your own information.

🤫 Handling Personal Data

The most important rule: **Be stingy with your data!** Only provide personal information when it is absolutely necessary and you trust the site 100%.

> **The "Marketplace Rule":** Would you write the information you are about to enter on a poster in the marketplace in Merseburg?

Data Privacy Traffic Light

🟢 Maybe OK

Your name? Maybe.

🟡 Rather Not

Your email address? Rather not.

🔴 Absolutely Not!

Your home address or phone number? Absolutely not!

🚫 NEVER!

Your password or bank details? NEVER!

🔑 Strong Passwords: Your Digital Keychain

Your password is the key to your digital life. A weak password is like a house key you leave under the doormat.

Weak Password ❌	Strong Password ✅	Why it's strong
123456	Mbg!Sonne?2909	Long, mix of uppercase/lowercase letters, numbers & symbols.
password	My#Favorite-River-Is-The-Saale	A long phrase (passphrase), easy to remember, hard to crack.
MaxMustermann	BvB4ever&1909!	Personal data is off-limits; here, interests are combined with numbers/symbols.

Rules for Strong Passwords

01

Length is more important than complexity

A long password is almost always better than a short, complicated one.

02

A different password for each site

Use a different password for each website.

03

No personal information

Do not use personal information (birthdays, names, etc.).

🖱 Beware of Downloads and Suspicious Links

Not everything that glitters on the internet is gold. Always be skeptical of offers that sound too good to be true.

Downloads

Only download programs from the official websites of the manufacturers. Random download buttons on various sites often contain viruses.

Email Attachments

Never open an attachment from a sender you don't know. Even if the email seems to be from a friend but looks strange, be cautious.

Links

Hover your mouse over a link, **without clicking**. The real destination address will then be displayed in the corner of your browser. This way, you can uncover fakes.

🍪 Cookies and What They Mean

When you visit a website, it often leaves a small text file on your computer: a **cookie**.

Imagine it like a **cloakroom ticket**. When you hand in your jacket, you get a ticket. When you return, you show the ticket and immediately get your jacket back. A cookie does the same thing: the website "remembers" you, for example, your shopping cart in an online store or that you have already logged in. This is convenient.

However, cookies can also be used to **track** your browsing behavior across different websites to show you targeted advertising.

For some time now, websites have therefore had to ask you which cookies they are allowed to set. You don't have to accept all of them. In most cases, you can only allow the **"technically necessary"** cookies, which are important for the site's function.

✉️ Email Introduction

An email (short for "electronic mail") is a digital message that you can send over the internet to one or more people. Think of it as your personal, digital post office that's open around the clock.

📮 Setting Up an Email Account

📬 What is an Email Account?

An email account is your personal, digital mailbox. It consists of two parts:

1. Your Unique Email Address

Just like your home address, so that mail knows where to find you (e.g., john.doe@email-provider.com).

2. Your Password

The key to your mailbox, ensuring only you can read your mail.

To send and receive emails, you need an account with an email provider. Many of these are free. Popular providers include:

- **GMX**
- **WEB.DE**
- **Gmail** (by Google)
- **Outlook** (by Microsoft)

✍️ Steps to Set Up

Visit the Provider's Website

Go to the website of your chosen provider (e.g., **www.gmx.de**) and look for a button like **"Register"** or **"Create Account"**.

Choose an Address

You need to come up with a name for your email address (the part before the @). Simple names like max.mustermann are often already taken. Be creative! Maybe m.mustermann2025 or max-from-merseburg. The provider immediately checks if your desired address is still available.

Set a Secure Password

This is extremely important! Choose a strong password that you can remember easily but others cannot guess. Use the tips we discussed when covering "Secure Browsing" (length, mix of characters, no personal data).

Personal Data & Recovery

You will often be asked for your name and date of birth. It's also important to provide an **alternative email address** or a **cell phone number**. This helps you if you ever forget your password.

Confirm and Complete

Read and accept the terms of use and complete the registration. Done! You can now log in to your inbox.

Subject:

Message

✉️ Writing, Sending, and Receiving Emails

📝 Writing an Email

Once you are logged into your inbox, you will always find a clearly visible button labeled **"Compose"**, **"New Email"**, or with a pen icon ✏️. Clicking on it opens the composition window.

The Most Important Email Fields

1

To

This is where the email address of the primary recipient goes. You can also separate multiple addresses with a comma.

2

Cc (Carbon Copy)

"Cc" means "Carbon Copy." Recipients you list here receive the email for their information. All other recipients can see who received a copy.

3

Bcc (Blind Carbon Copy)

"Bcc" means "Blind Carbon Copy." Recipients in this field are invisible to all other recipients. This is useful when sending an email to many people who don't know each other (e.g., an invitation to your circle of friends).

4

Subject

Very important! Always provide a brief, meaningful summary of your email here (e.g., "Question about Homework," "Meeting Minutes from 09/29/2025," or "Birthday Invitation"). Emails without a subject appear unprofessional or end up in the spam filter.

5

Large Text Field

Here you write your actual message, just like a regular letter, often with a salutation ("Dear...", "Hello..."), the body text, and a closing ("Sincerely," "Best regards").

📤 Sending and Receiving an Email

Once you are finished, click the **"Send"** button. The email will then be sent across the internet and usually arrives in the recipient's inbox within seconds.

Your mailbox has various folders. The most important one is the **Inbox**. All new emails addressed to you arrive here. New, unread messages are usually marked in **bold**. Clicking on the subject line opens the email, and you can read it.

📎 Working with Attachments

Sometimes you want to send not just text, but also a file – for example, a photo, a resume as a PDF, or a spreadsheet. This is called an attachment.

➕ Adding and Saving Email Attachments

Imagine the attachment like a photo you put into the envelope of a letter.

📎 Adding an Attachment

01

Open the compose window

Open the window for writing a new email.

02

Find the paperclip icon

Look for an icon that resembles a **paperclip** (📎). This icon always means "add attachment."

03

Select a file

Clicking on it opens your computer's file explorer.

04

Upload the file

Navigate to the file you want to send (e.g., in the Documents or Pictures folder), click on it, and select **"Open."**

05

Confirm attachment

The file will now be uploaded. You usually see it below the subject line as a small icon with the filename and size information. You can also attach multiple files.

> 🗒 **Note:** Most providers have a size limit for attachments, often around 25 megabytes (MB). For very large files (e.g., long videos), there are other solutions (cloud services).

💾 Opening and Saving an Attachment

When you receive an email with an attachment, you will also see the paperclip icon next to the subject in your inbox.

- In the opened email, the attachment is displayed at the end of the message.
- You can often click on it to see a **preview** directly in the browser.
- More importantly, look for the **Download** button (often an arrow pointing downwards ↓). Clicking this will save the file to your computer. It's best to choose a location where you can easily find it again, such as the "Downloads" folder or an appropriate project directory.

⚠️ Precautions When Opening Unknown Attachments

This is the most important safety rule regarding email! Attachments are the most common way computer viruses and malware are spread.

Be extremely suspicious if any of the following apply:

→ 🚩 Unknown Sender

You don't know the person or company.

→ 🚩 Unexpected Email

You receive an alleged invoice from a shop you never ordered from, or a package notification even though you're not expecting anything.

→ 🚩 Suspicious Subject Line

The subject line artificially creates pressure or curiosity (e.g., "Final Reminder," "You've Won!," "Your Account Has Been Blocked").

→ 🚩 Generic Salutation

The email starts with "Dear Customer" instead of your name.

→ 🚩 Suspicious File Types

Be especially careful with files ending in .exe, .bat, .msi, or .zip if you're not explicitly expecting them. These can directly launch programs.

> **The golden rule is: When in doubt, NEVER open it!** It's better to delete the email immediately. No reputable company will send you important information exclusively in an unexpected attachment.