



**MALAD KANDIVALI EDUCATION SOCIETY'S
NAGINDAS KHANDWALA COLLEGE OF COMMERCE,
ARTS & MANAGEMENT STUDIES & SHANTABEN NAGINDAS
KHANDWALA COLLEGE OF SCIENCE
MALAD [W], MUMBAI – 64
(AUTONOMOUS)**

**(Reaccredited 'A' Grade by NAAC)
(AFFILIATED TO UNIVERSITY OF MUMBAI)
(ISO 9001:2015)**

CERTIFICATE

Name: Mr./Ms. SUDHIR SRINIVAS RAPAKA

Roll No: 47 Programme: BSc CS Semester: II

This is certified to be a bonafide record of practical works done by the above student in the college laboratory for the course **IT platforms, Tools and Practices** (Course Code: **2026UISTP**) for the partial fulfillment of Second Semester of BSc CS during the academic year 2020-2021.

The journal work is the original study work that has been duly approved in the year 2020-2021 by the undersigned.

External Examiner

**(Ms Sweety Garg)
(Subject-In-Charge)**

Date of Examination:

(College Stamp)

Date of Examination: (College Stamp)

Name: Sudhir rapaka

Roll No: 47

Sr. No.	DATE	TITLE	SIGN
1.		INTRODUCTION and CONTRIBUTING TO WIKIPEDIA a) What is Wikipedia? b) Steps to Create Account on Wikipedia c) Creating Page on Wikipedia d) Edit your page	
2.		Creating account, repository on GitHub and Cloning repository in GitHub Page	
3.		BASIC UNDERSTANDING ON FREE AND OPEN-SOURCE SOFTWARE a) Describe Open-Source Software with Example. b) Describe Free Software with Example c) Difference between Free and Open-Source Software.	
4.		WRITING EMAIL	
5.		Using practical examples, describe green computing. List and explain the steps that you take to contribute to green computing	
6.		WRITING BLOGS	
7.		Implementing coding practices in Python using PEP8.	
8.		PRESENTATION: _____	

Practical 1

a) What is Wikipedia?

Wikipedia is a free, multilingual open-collaborative online encyclopedia created and maintained by a community of volunteer editors using a wiki-based editing system. It is one of the 15 most popular websites as ranked by Alexa, as of January 2021 and The Economist newspaper placed it as the "13th-most-visited place on the web". Featuring no advertisements, it is hosted by the Wikimedia Foundation, an American non-profit organization funded primarily through donations.

Wikipedia was launched on January 15, 2001, by Jimmy Wales and Larry Sanger. Sanger coined its name as a portmanteau of "wiki" and "encyclopedia". It was initially an English-language encyclopedia, but versions in other languages were quickly developed. With 6.2 million articles, the English Wikipedia is the largest of the 317 Wikipedia encyclopedias. Overall, Wikipedia comprises more than 55 million articles, attracting 1.7 billion unique visitors per month.

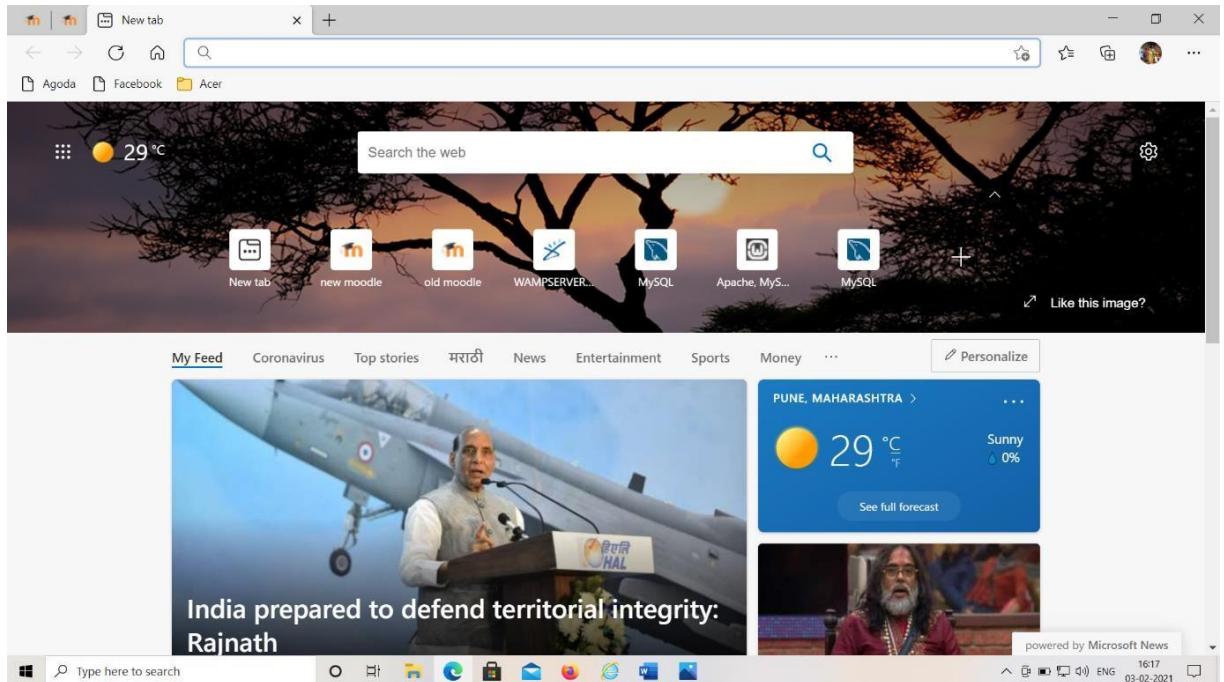
Wikipedia has been criticized for its uneven accuracy and for exhibiting systemic bias, including gender bias, with the majority of editors being male. Edit-a-thons have been held to encourage female editors and increase the coverage of women's topics. In 2006, Time magazine stated that the open-door policy of allowing anyone to edit had made Wikipedia the biggest and possibly the best encyclopedia in the world, and was a testament to the vision of Jimmy Wales. The project's reputation improved further in the 2010s as it increased efforts to improve its quality and reliability, based on its unique structure, curation and absence of commercial bias. In 2018, Facebook and YouTube announced that they would help users detect fake news by suggesting links to related Wikipedia articles.

Advantages of Wikipedia:

- Anyone can edit
- Easy to use and learn
- Wikis are instantaneous so there is no need to wait for a publisher to create a new edition or update information
- People located in different parts of the world can work on the same document
- The wiki software keeps track of every edit made and it's a simple process to revert back to a previous version of an article

a) Steps to Create Account on Wikipedia.

Open any browser on your device:



Search for www.wikipedia.com

A screenshot of a Microsoft Bing search results page. The search query is 'www.wikipedia.com'. The top result is a link to 'Wikipedia - Wikipedia' on www.wikipedia.org. The page displays basic information about Wikipedia, including its definition as a free online encyclopedia, its creation by the Wikimedia Foundation, and its availability in multiple languages. It also lists related topics like English, Coronavirus, Kabir Singh, Mahatma Gandhi, Lithuania, Slovakia, and Sahoo. On the right side, there is a detailed sidebar with sections for 'Wikipedia', 'Founders', 'Parent organisation', 'Written in', 'Available in', 'Created by', 'Data from', and 'Suggest an edit'.

Click the first result :

www.wikipedia.com - Bing

W Wikipedia - Wikipedia

https://en.wikipedia.org/wiki/Wikipedia

Article Talk

Read View source View history Search Wikipedia

Not logged in Talk Contributions Create account Log in

20 years of WIKIPEDIA
From One Billion Editors

Main page Contents Current events Random article About Wikipedia Contact us Donate Contribute Help Learn to edit Community portal Recent changes Upload file Tools Related changes Special pages Permanent link Page information Cite this page Wikidata item Print/export Download as PDF Printable version In other projects Wikimedia Commons

For the English edition, see [English Wikipedia](#). For other uses, see [Wikipedia \(disambiguation\)](#).

Wikipedia (/wɪkɪˈpiːdiə/ (listen) *wik-i-PEE-dee-a* or /wɪki-/ (listen) *wik-ee-*) is a free, multilingual open-collaborative online encyclopedia created and maintained by a community of volunteer editors using a wiki-based editing system. It is one of the 15 most popular websites as ranked by Alexa, as of January 2021^[3] and *The Economist* newspaper placed it as the "13th-most-visited place on the web".^[4] Featuring no advertisements, it is hosted by the Wikimedia Foundation, an American non-profit organization funded primarily through donations.

Wikipedia was launched on January 15, 2001, by Jimmy Wales and Larry Sanger. Sanger coined its name^{[5][6]} as a portmanteau of "wiki" and "encyclopedia". It was initially an English-language encyclopedia, but versions in other languages were quickly developed. With 6.2 million articles, the English Wikipedia is the largest of the 317 Wikipedia encyclopedias. Overall, Wikipedia comprises more than 55 million articles,^[7] attracting 1.7 billion unique visitors per month.^{[8][9]}

Wikipedia has been criticized for its uneven accuracy and for exhibiting systemic bias, including gender bias, with the majority of editors being male.^[10] Edit-a-thons have been held to encourage female editors and increase the coverage of women's topics.^[10] In 2006, *Time* magazine stated that the open-door policy of allowing anyone to edit had made Wikipedia the biggest and possibly the best encyclopedia in the world, and was a testament to the vision of Jimmy Wales.^[11] The project's reputation improved further in the 2010s as it increased efforts to improve its quality and reliability, based on its unique structure, curation and absence of commercial bias.^[4] In 2018, Facebook and YouTube announced that they would help users detect fake news by suggesting links to related Wikipedia articles.^[12]

Contents [hide]

- 1 History
 - 1.1 Nupedia
 - 1.2 Launch and early growth
 - 1.3 Milestones
- 2 Openness
 - 2.1 Restrictions
 - 2.2 Review of changes
 - 2.3 Vandalism
 - 2.4 Edit warning
- 3 Policies and laws
 - 3.1 Content policies and guidelines

Screenshots [show]

Type here to search

Online encyclopedia 317 languages

United States Country of origin

Wikimedia Foundation Owner

Jimmy Wales, Larry Sanger Created by

wikipedia.org URL

No Commercial

Optional[Note 1] Registration

>355,989 active users[Note 2] and >94,043,473 registered users

1,113 administrators (English) Users

15:32 ENG 03-02-2021

Click to create your account

Create account - Wikipedia

en.wikipedia.org/index.php?title=Special:CreateAccount&returnto=Wikipedia%3AHow+to+create+a+page

Special page

Not logged in Talk Contributions Create account Log in

Search Wikipedia

WIKIPEDIA The Free Encyclopedia

Main page Contents Current events Random article About Wikipedia Contact us Donate Contribute Help Learn to edit Community portal Recent changes Upload file Tools Upload file Special pages Printable version Languages

Please consider using an anonymous username, and not your real name, unless you are comfortable with your identity being public for the entire internet to see and identify you. Once an account has been created, it is essentially impossible to hide the original username should you later want to change it for privacy reasons.

Create account

Your username will be public.

Username (help me choose) sudhirapaka18

Password

It is recommended to use a unique password that you are not using on any other website.

Confirm password

Email address (optional) sudhirapaka18@gmail.com

To protect the wiki against automated account creation, we kindly ask you to enter the words that appear below in the box (more info):

CAPTCHA Security check

soulsmask

Enter the text you see on the image

Can't see the image? Request an account

Create your account

b) Creating Page on Wikipedia

Click on the Create Source

c) Editing content on Wikipedia

Click on the view source

After editing the content click on the publish page

1) What is GitHub?

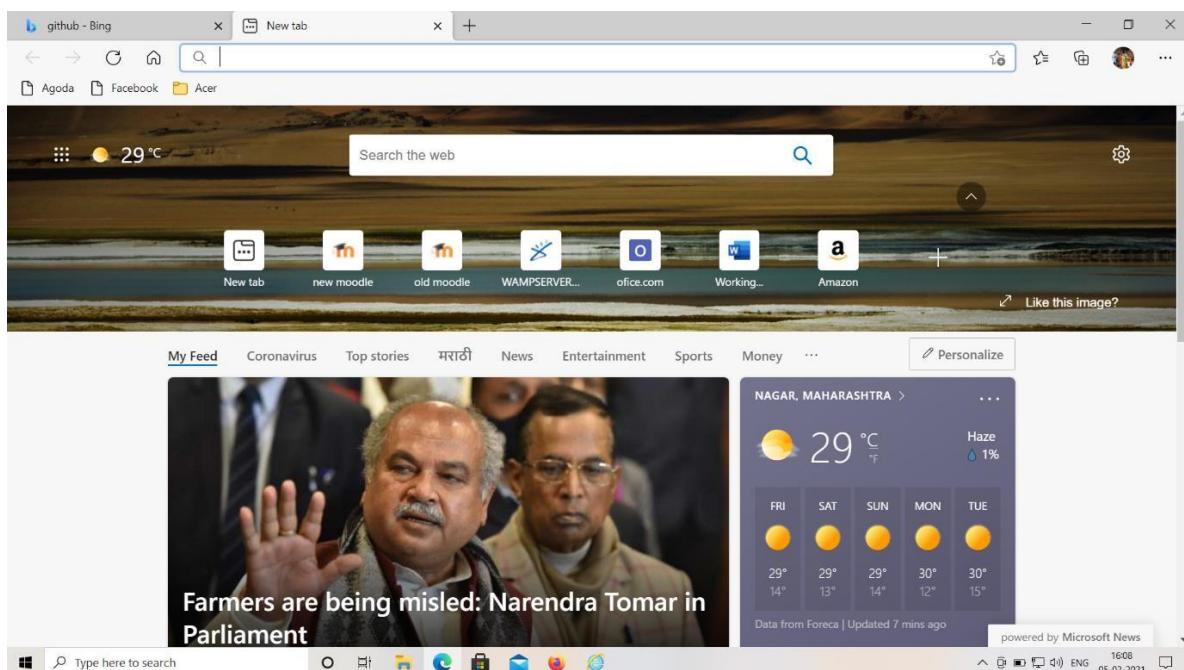
GitHub, Inc. is a provider of Internet hosting for software development and version control using Git. It offers the distributed version control and source code management (SCM) functionality of Git, plus its own features. It provides access control and several collaboration features such as bug tracking, feature requests, task management, continuous integration and wikis for every project. Headquartered in California, it has been a subsidiary of Microsoft since 2018.

GitHub offers its basic services free of charge. Its more advanced professional and enterprise services are commercial. Free GitHub accounts are commonly used to host open-source projects .As of January 2019, GitHub offers unlimited private repositories to all plans, including free accounts, but allowed only up to three collaborators per repository for free. Starting from April 15, 2020, the free plan allows unlimited collaborators, but restricts private repositories to 2,000 minutes of GitHub Actions per month. As of January 2020, GitHub reports having over 40 million users and more than 190 million repositories(including at least 28 million public repositories),making it the largest host of source code in the world.

a) To open github

Open your choice

Browser



Search for github.com

The screenshot shows a Bing search results page for "github". The search bar at the top contains "github". Below the search bar, there are filters for "ALL", "IMAGES", "VIDEOS", "MAPS", "NEWS", and "SHOPPING". The search results section displays several items:

- CI for GitHub - Build Test and Deploy | circleci.com**
https://circleci.com/integrations/github • Ad Start Building and Testing in seconds. Free Sign Up with GitHub
- GitHub: Where the world builds software : GitHub**
https://github.com • GitHub is where over 56 million developers shape the future of software, together. Contribute to the open source community, manage your Git repositories, review code like a pro, track bugs and features, power your CI/CD and DevOps workflows, and secure code before you commit it.
- Sign In**
GitHub is where people build software. More than 56 million people use GitHub to ...
- Join GitHub**
GitHub is where people build software. More than 56 million people use GitHub to ...
- See more ▾**
- GitHub - GitHub**
https://github.com/Github • GitHub does not endorse or adopt any assertion contained in the following notices. Users identified in the notices are presumed innocent until proven guilty. Additional information about our DMCA policy can be found at
- Videos of GitHub**
bing.com/videos

A sidebar on the right provides detailed information about GitHub:

- Provider**: GitHub, Inc. is a provider of Internet hosting for software development and version control using Git. It offers the distributed version control and source code management functionality of Git, plus its own features. It provides access control and several ... +
- Social Links**: Wikipedia, Facebook, LinkedIn, Instagram, YouTube
- History**: Founded: 08 Feb 2008
- Leadership**: CEO: Nat Friedman
- Founders**: Tom Preston-Werner · Chris Wanstrath · Scott Chacon · P. J. Hyett
- Subsidiaries**: Semmle · npm, Inc. · Dependabot · Gitalytics · Easel · Ordered List · Full Panda · Spectrum
- Written in**: Ruby, ECMAScript, Go, C
- Available in**: English
- Data Source**: Data from Wikipedia · Crunchbase · Wikipedia text under CC-BY-SA license
- Suggest an edit**

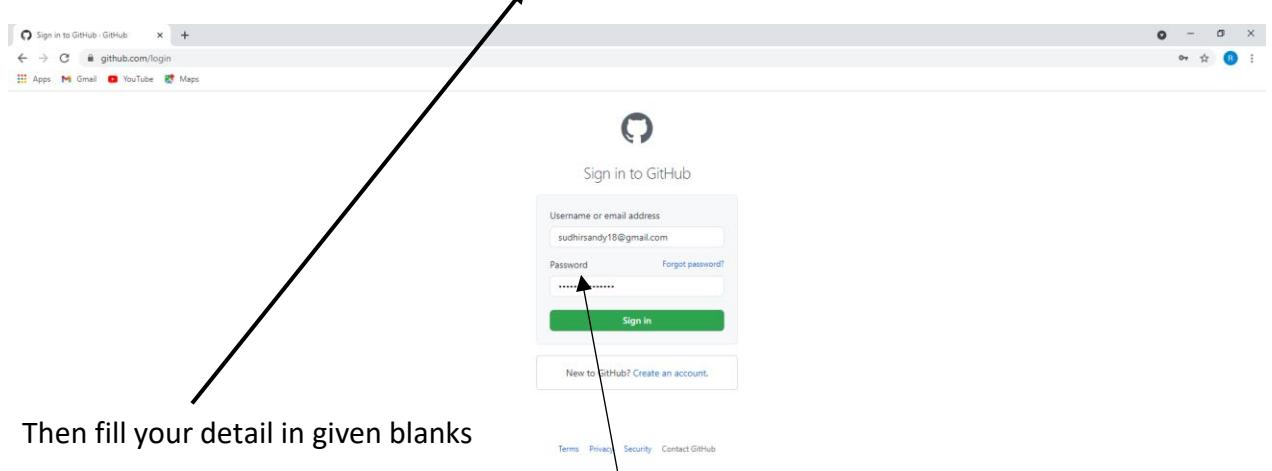
Click on the official site of github

Then the official page of github will open

The screenshot shows the GitHub homepage (<https://github.com>). The page has a dark blue background with a large globe graphic in the center. At the top, there is a navigation bar with links for "Why GitHub", "Team", "Enterprise", "Explore", "Marketplace", and "Pricing". The main headline reads "Where the world builds software". Below the headline, there is a call-to-action with an "Email address" input field and a green "Sign up for GitHub" button. To the right of the input fields, there is a "Search GitHub" input field and "Sign in" and "Sign up" buttons. A yellow arrow points to the "Sign up" button. At the bottom of the page, there are several statistics: "56+ million Developers", "3+ million Organizations", "100+ million Repositories", and "72% Fortune 50". The bottom of the screen shows the Windows taskbar with various pinned icons and the date/time: "16:08 05-02-2021".

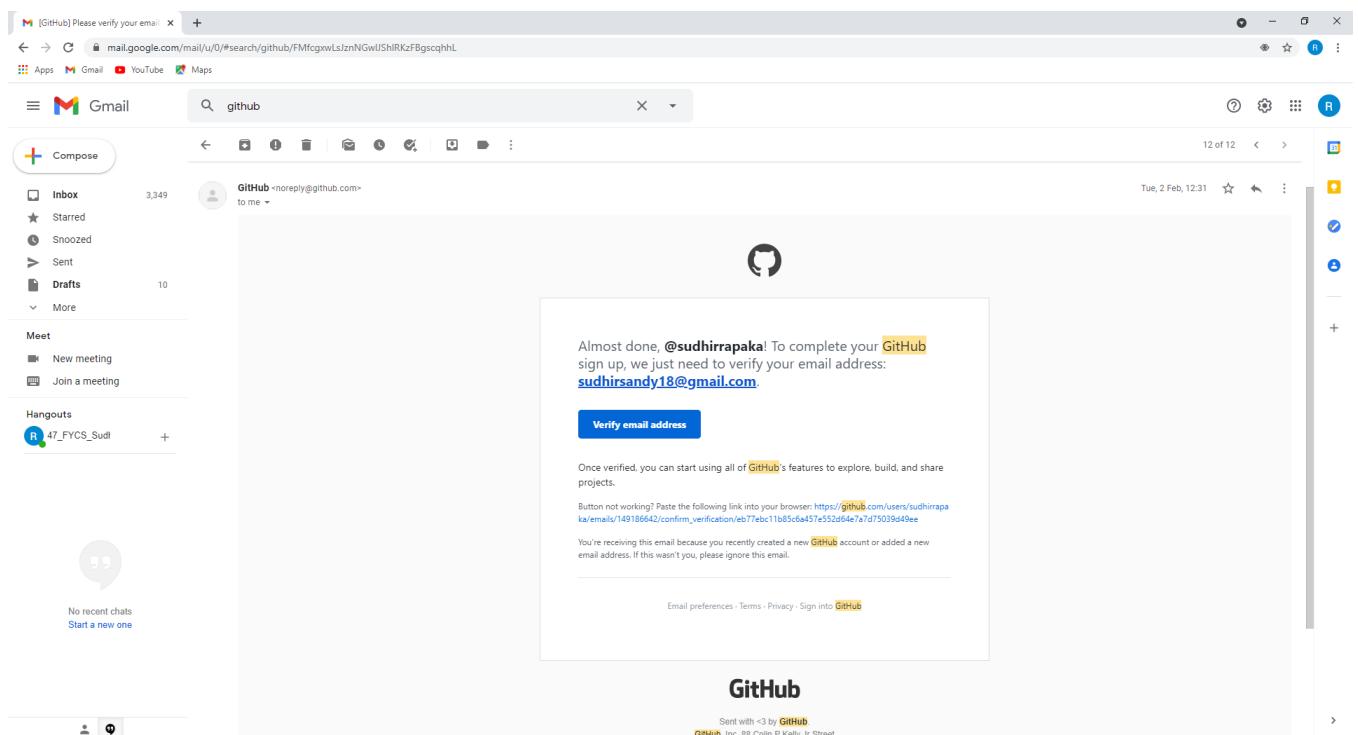
a) To create account on github

click on the sign up



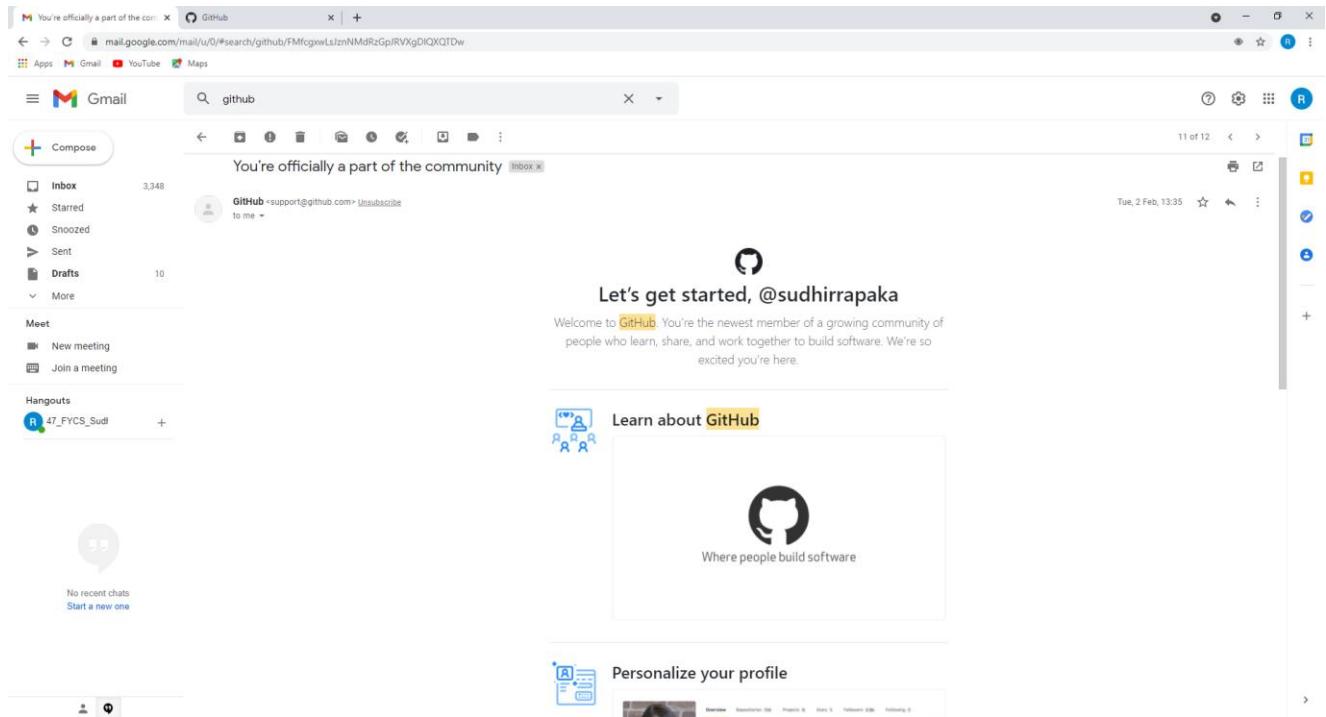
And then verify the given captcha and click on the create account

Now a verification email will be send to
your mail Go to mail click on the verify
email address



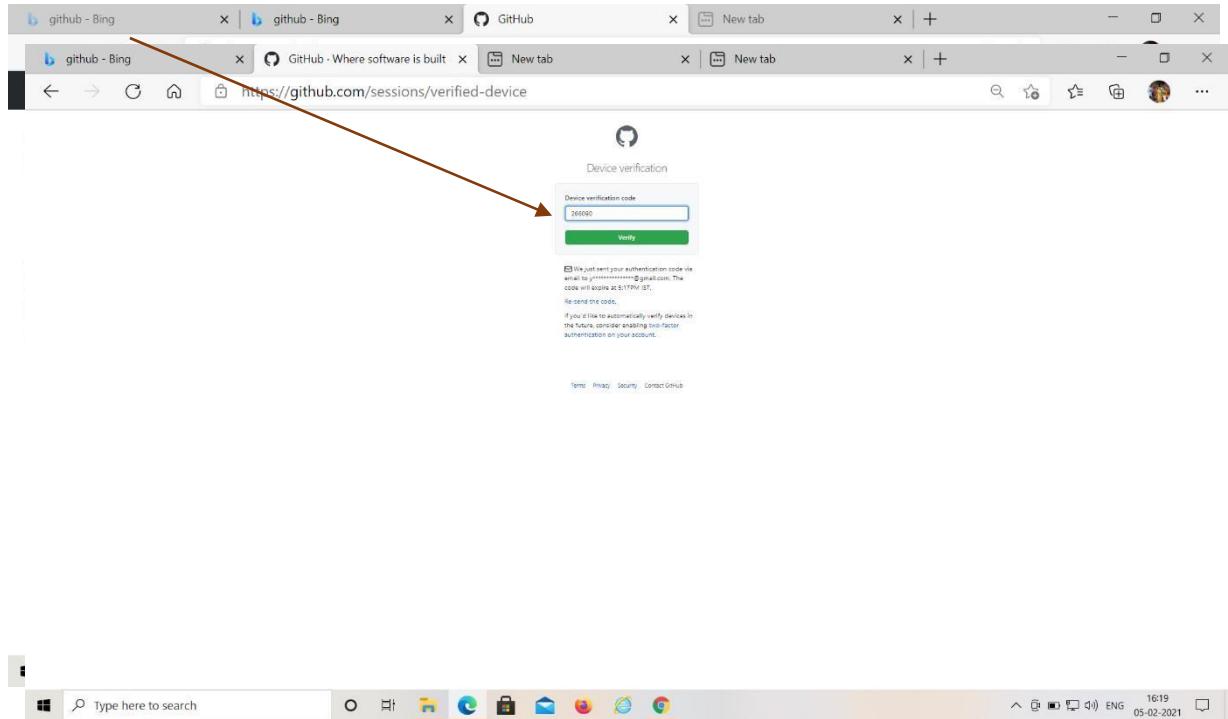
Now verify your device

An email will be send to your mail, an otp.



Now, paste this otp to the given blank

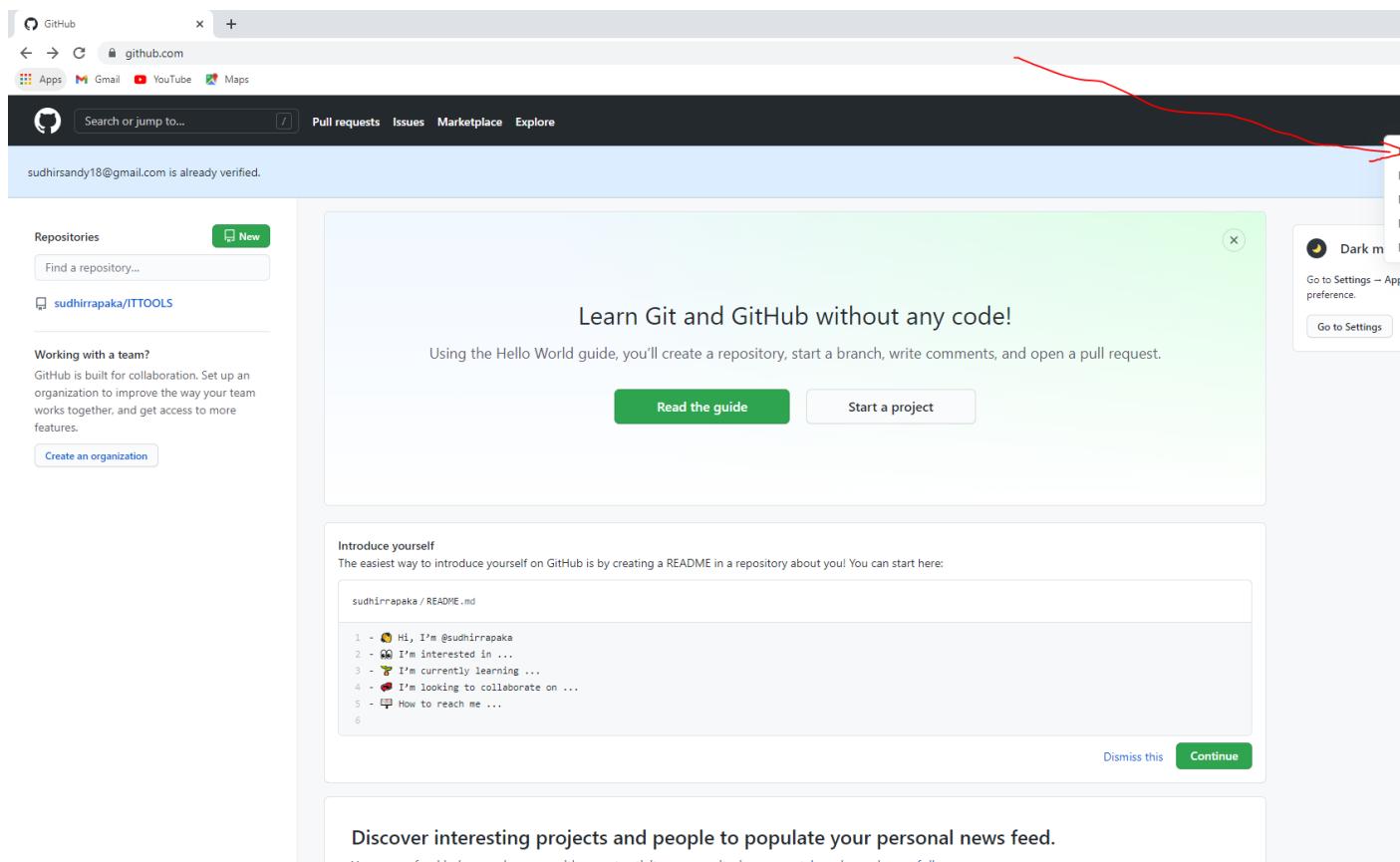
Now your account is ready



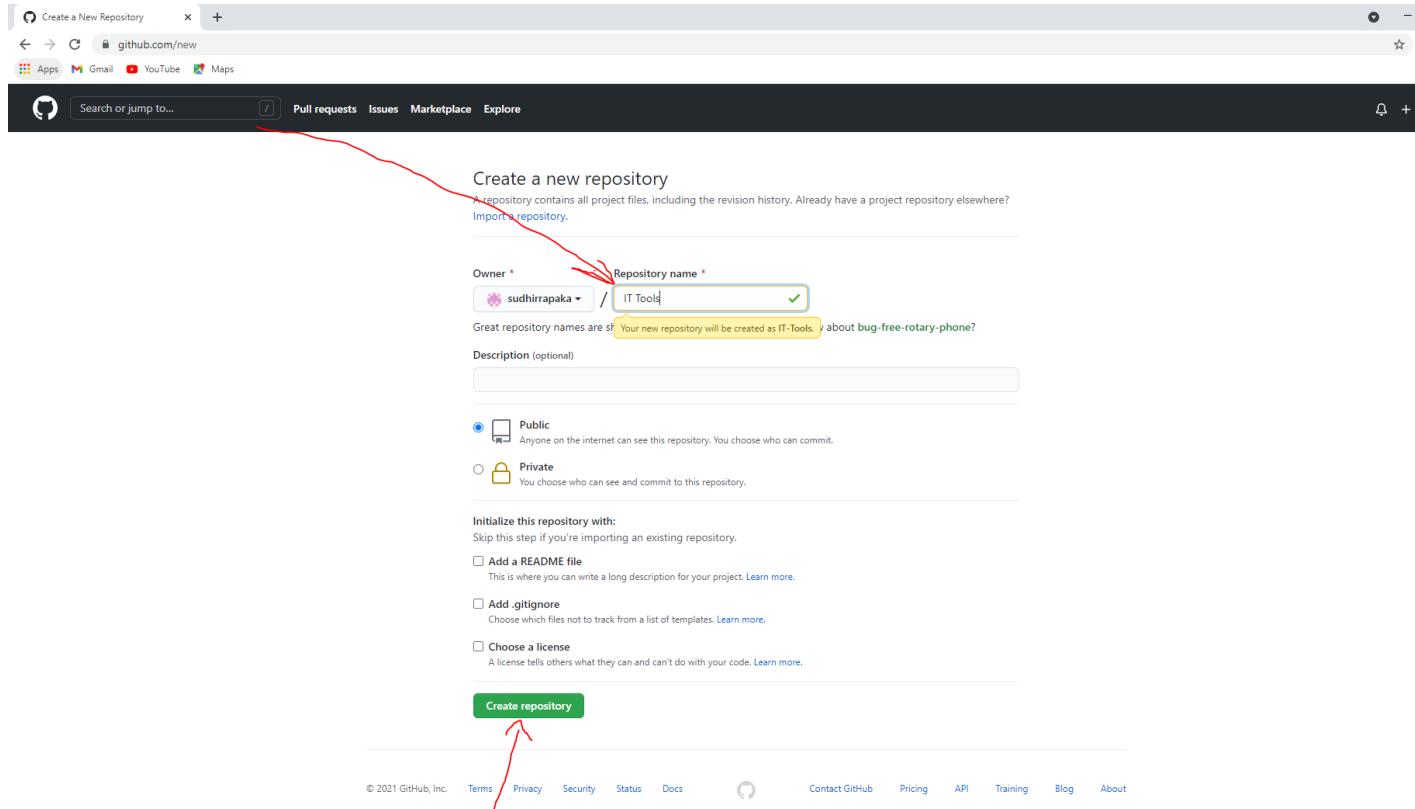
b) To create repository

Go to your account

On right hand side there is a '+' option click on it



Name your repository



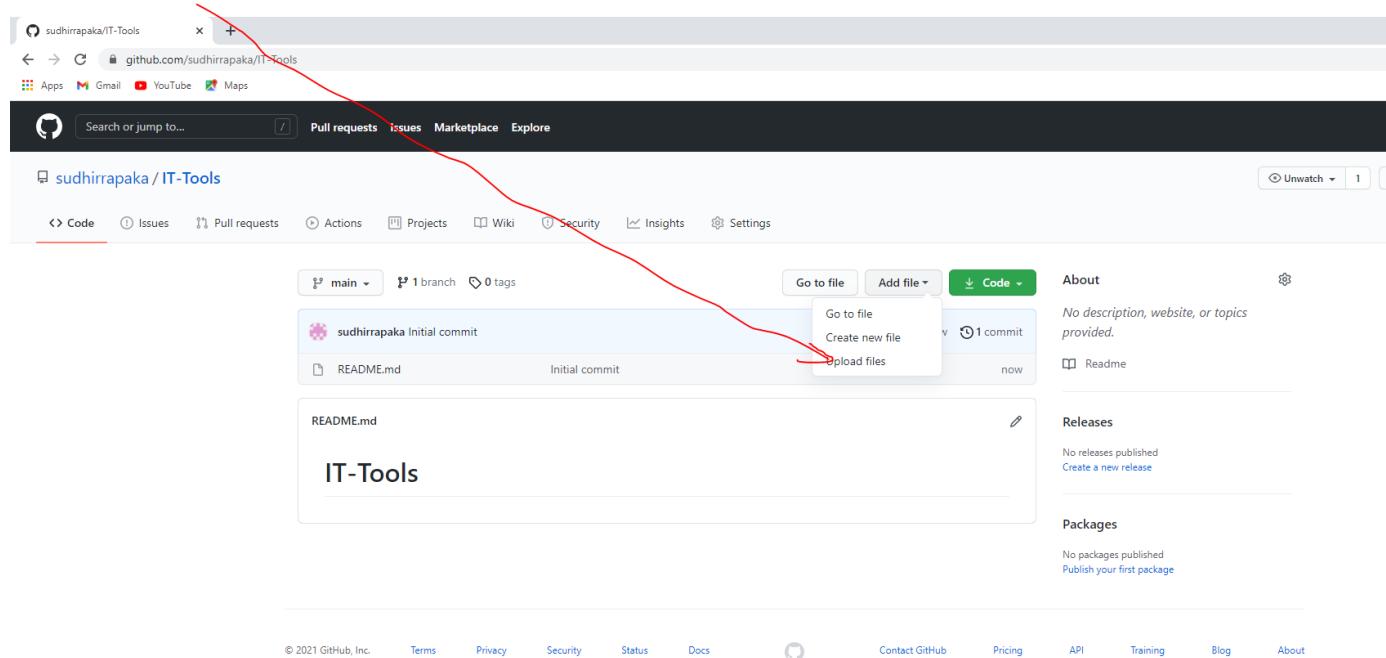
Click on the create repository

Now your repository is been created...

c) To add file

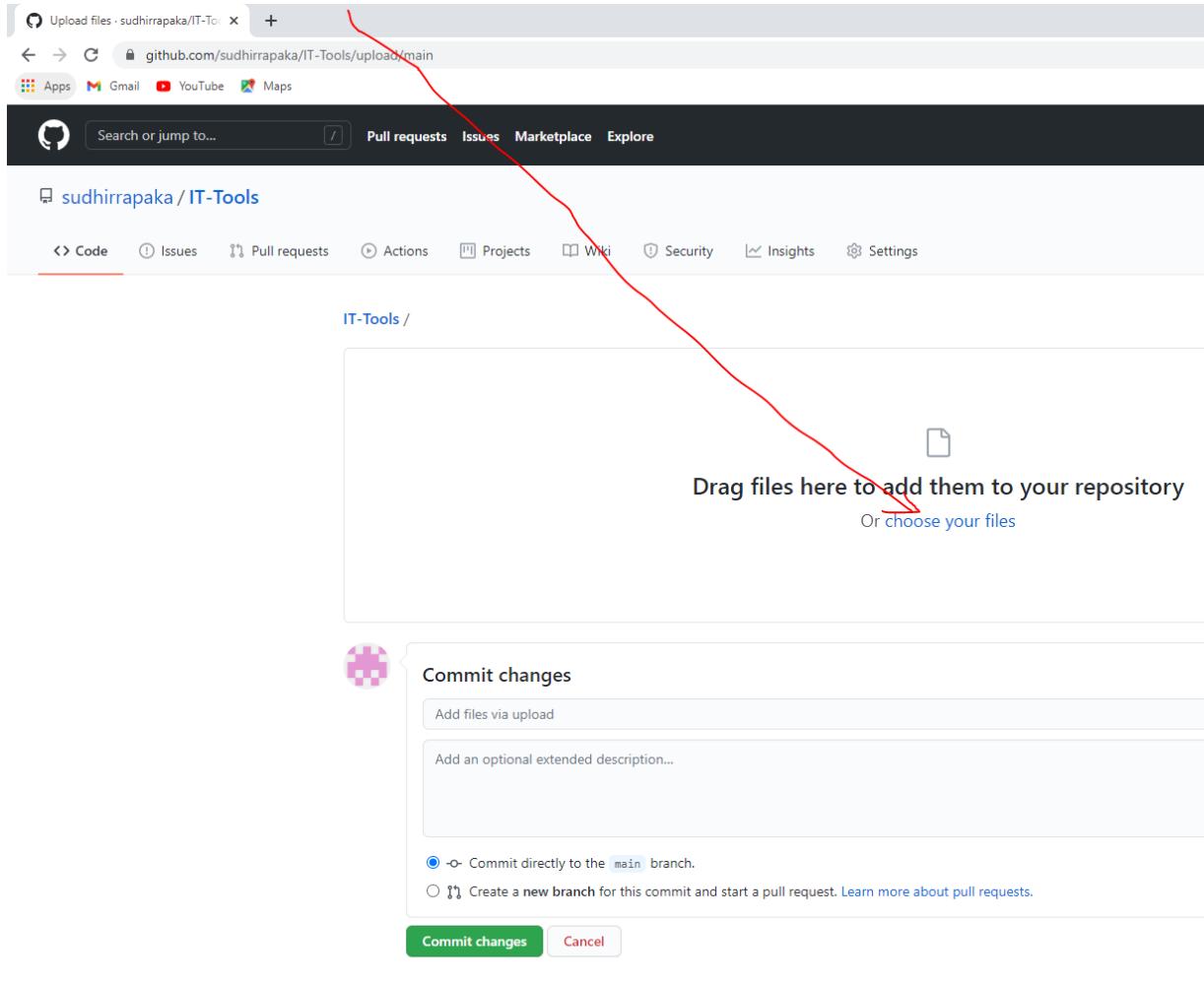
Now to add an file in your
repository Go to your
repository

Click on add file

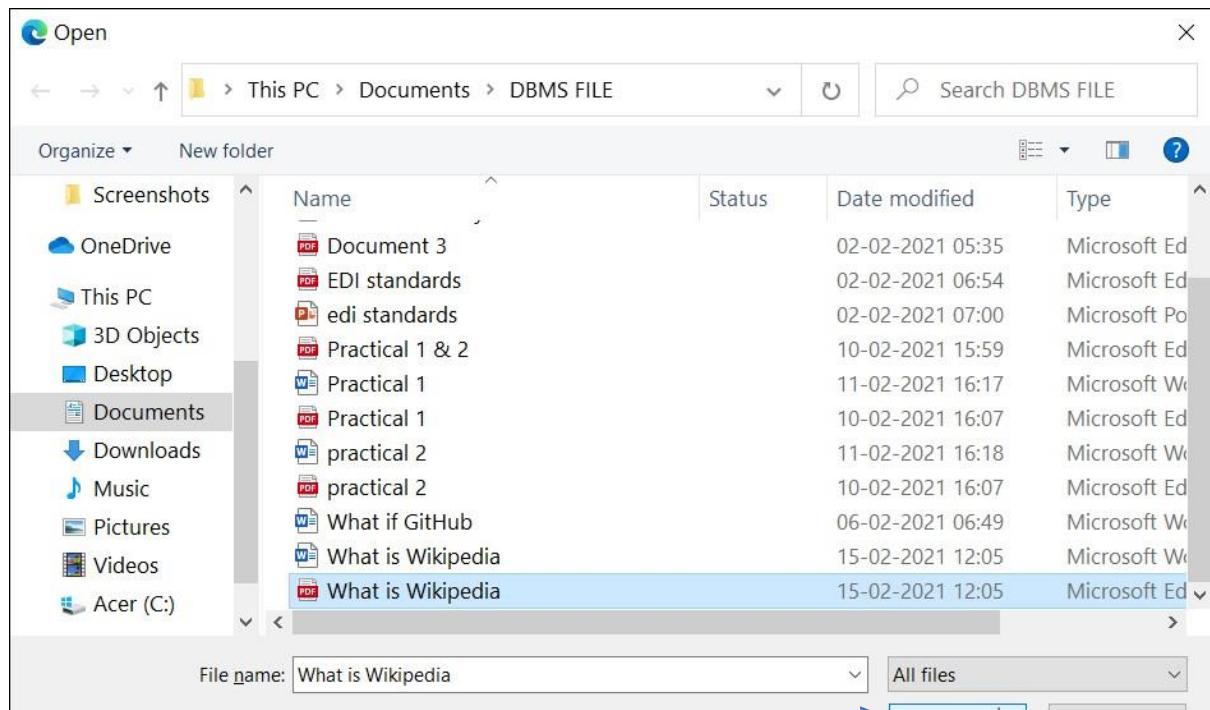


Then click on upload file

Then click on the choose your file

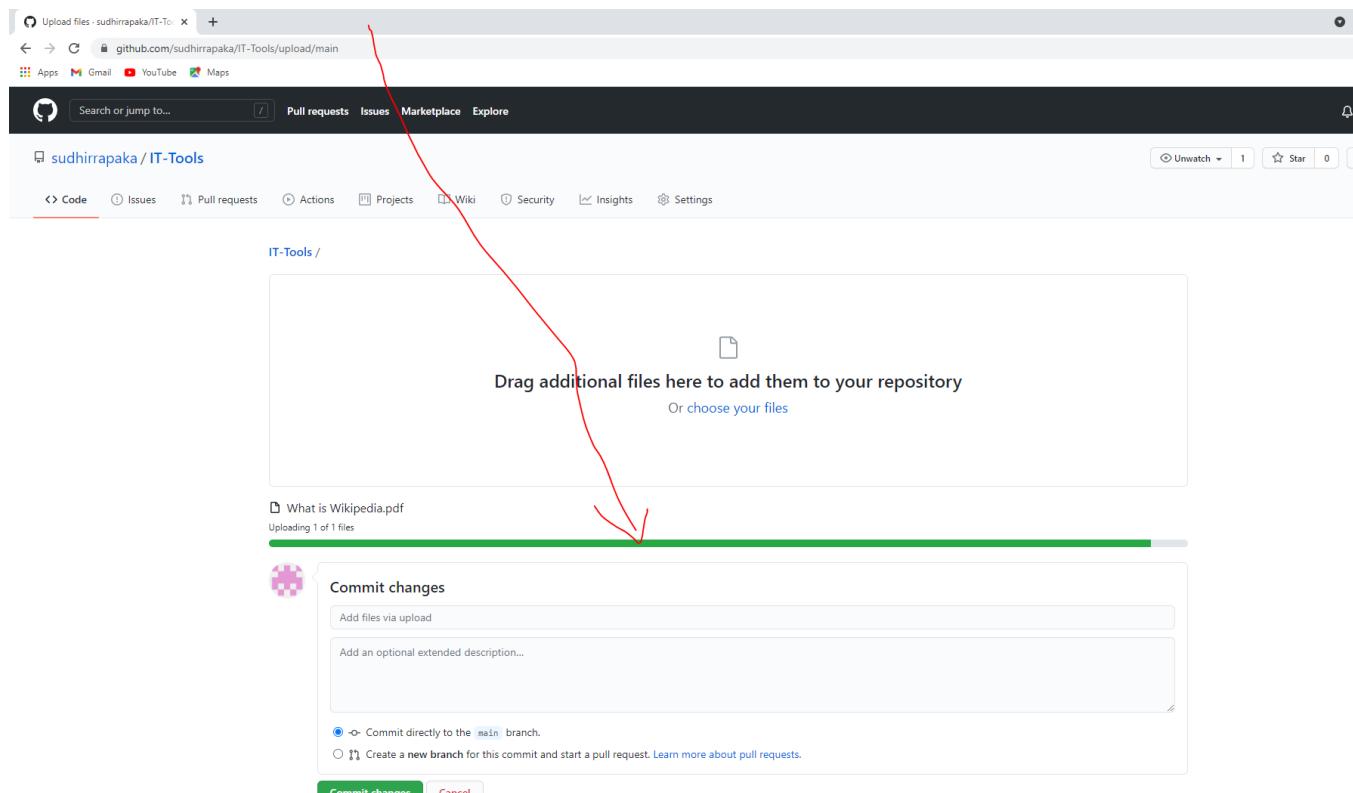


Then choose your file from the folder

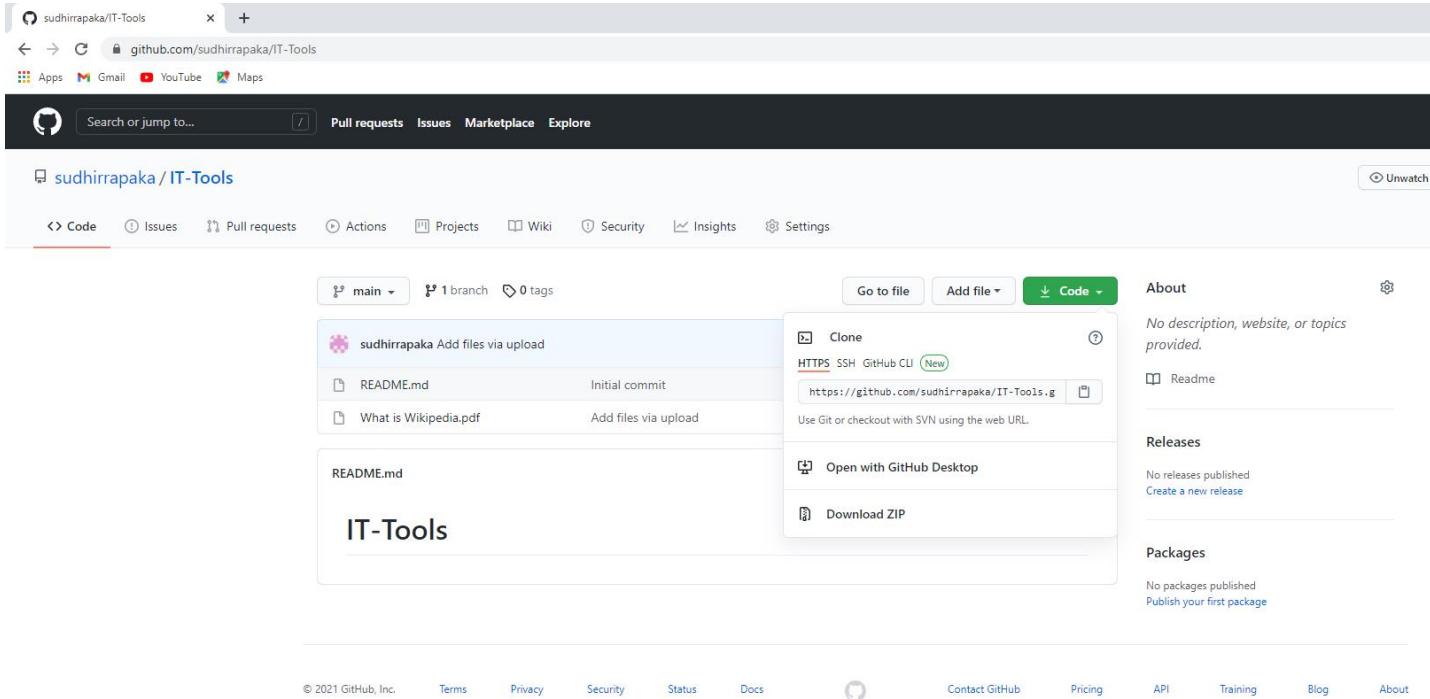


Then click on the open

And your file is been uploading



Now click on the commit changes
And your file is been uploaded properly
Now click on code and click on the copy option



The screenshot shows a GitHub repository page for 'sudhirrapaka/IT-Tools'. The repository has 1 branch and 0 tags. It contains two files: 'README.md' (Initial commit) and 'What is Wikipedia.pdf' (Add files via upload). The 'Code' tab is selected. On the right, there is a 'Clone' section with options for HTTPS, SSH, and GitHub CLI, and a link to the repository's URL. There are also links to 'Open with GitHub Desktop' and 'Download ZIP'. The repository has no releases or packages published.

Now your repository is been cloned. Now share the link to anyone.

**PRAC
TICA
L 3**

BASIC UNDERSTANDING ON FREE AND OPEN-SOURCE SOFTWARE

1. Describe Open Source Software with Example.

7 Open-source software (OSS) is any computer software that's distributed with its source code available for modification. That means it usually includes a license for programmers to change the software in any way they choose: They can

fix bugs, improve functions, or adapt the software to suit their own needs

While its lack of cost is a key advantage, OSS has several additional benefits:

- Its quality can be easily and greatly improved when its source code is passed around, tested, and fixed.
- It offers a valuable learning opportunity for programmers. They can apply skills to the most popular programs available today.
- It can be more secure than proprietary software because bugs are identified and fixed quickly.
- Since it is in the public domain, and constantly subject to updates, there is little chance it can become unavailable or quickly outmoded—an important plus for long-term projects.

Open-source technologies helped establish much of the internet. Furthermore, many of the programs in use every day are based on open-source technologies. Cases in point: Android OS and Apple's OS X are based on the kernel and Unix/BSD open-source technologies, respectively.

Other popular open-source software is:

- Mozilla's Firefox web browser
- Thunderbird email client
- PHP scripting language
- Python programming language
- Apache HTTP web server

2. Describe Free Software with Example

7 Free software is software that can be freely used, modified, and redistributed with only one restriction: any redistributed version of the software must be distributed with the original terms of free use, modification, and distribution (known as copyleft). The definition of free software is stipulated as part of the GNU Project and by the Free Software Foundation. Free software may be packaged and distributed for a fee; the "free" refers to the ability to reuse it, modified or unmodified, as part of another software package. As part of the ability to modify, users of free software may also have access to and study the source code.

Free software is easily confused with freeware, term describing software that can be freely downloaded and used but which may contain restrictions for modification and reuse.

Best Free software at a glance:

1. LibreOffice
2. VLC Media Player
3. GIMP
4. Shortcut
5. Brave
6. Audacity
7. KeePass
8. Thunderbird
9. FileZilla
10. Linux

3. Difference between Free and Open Source Software.

→ Free Software:

“Free software” means software that respects users’ freedom and community. Roughly, it means that the users have the freedom to run, copy, distribute, study, change and improve the software.

The term “free software” is sometimes misunderstood—it has nothing to do with price. It is about freedom.

Open Source Software :

Open Source Software is something which you can modify as per your needs, share with others without any licensing violation burden. When we say Open Source, source code of software is available publicly with Open Source licenses like GNU (GPL) which allows you to edit source code and distribute it. Read these licenses and you will realize that these licenses are created to help us.

- Coined by the development environments around software produced by open collaboration of software developers on the internet.
- Later specified by the Open Source Initiative (OSI).
- It does not explicitly state ethical values, besides those directly associated to software development.

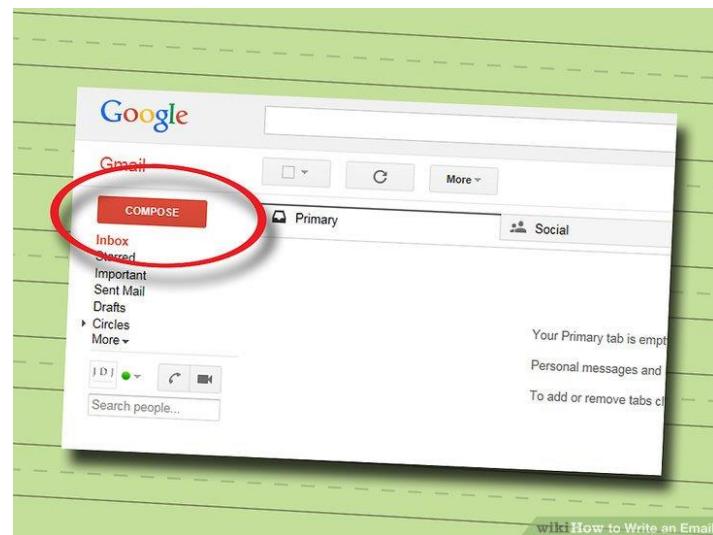
S.No.	Free Software:	Open Source Software :
1.	Software is an important part of people's lives.	Software is just software. There are no ethics associated directly to it.
2.	Software freedom translates to social freedom.	Ethics are to be associated to the people not to the software.
3.	Freedom is a value that is more	Freedom is not an absolute concept.

S.No.	Free Software:	Open Source Software :
	important than any economic advantage.	Freedom should be allowed, not imposed.
4.	<p>Examples: The Free Software Directory maintains a large database of free-software packages. Some of the best-known examples include the Linux kernel, the BSD and Linux operating systems, the GNU Compiler Collection and C library; the MySQL relational database; the Apache web server; and the Send mail transport agent.</p>	<p>Examples: Prime examples of open-source products are the Apache HTTP Server, the e-commerce platform ecommerce, internet browsers Mozilla Firefox and Chromium (the project where the vast majority of development of the freeware Google Chrome is done) and the full office suite LibreOffice.</p>

PRACTICAL 4: WRITING EMAIL

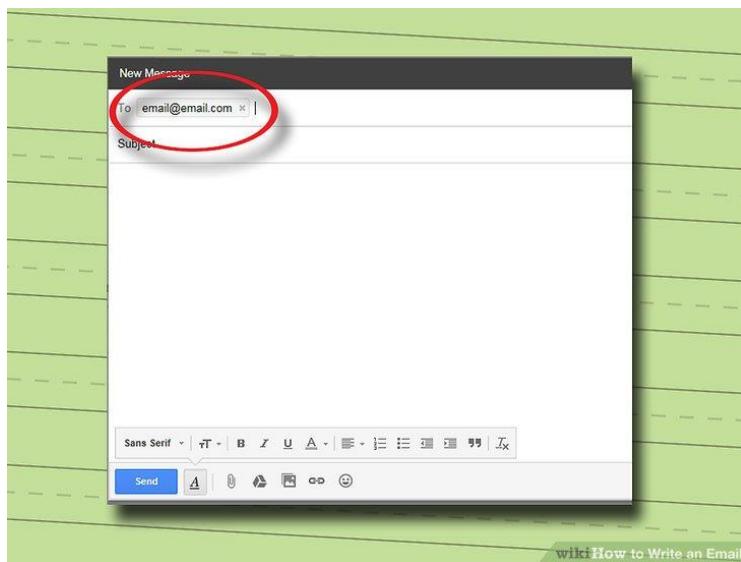
1.to sign up with an email provider before proceeding. Thankfully, there are many free web-based email providers who you can get a free email address with for no cost. Some of the most popular ones include:

- [Gmail](#)
- Hotmail
- [Yahoo mail](#)



Click on "Compose" or "New." Before you can write an email, you will need to open a new, blank message box to write your email in. The exact method varies depending on the service you use, but there will usually be a button toward the top of the page with a label like “Compose,” “New,” or “New Message.”

- If you are uncertain about how to create a new message, check the help pages for your email service to learn more about it in greater detail.



3

List the recipients' email addresses. You do not need to list your own email address, but you do need to specify the email address of the person or people you intend to send the email to.

- A space is often enough to separate multiple email addresses, but some services do request that you separate multiple addresses with a comma or some other form of punctuation. If this is the case, these instructions should be specified by your specific email provider.
- Type the email address of the main receiver or receivers in the “To:” field. The main receiver usually refers to anyone whom the email is directly meant for or addressed to in the body of the email.
- Type other email addresses in the “CC:” field. This is the “copy” field. A receiver should be listed in the “CC:” field if the email does not directly mention them but does refer to something that individual should be aware of.
- Use the “BCC:” field to hide email addresses. If you do not want the receivers of an email to see a list of email addresses the

message went to, you should type those email addresses in the “blind copy” field.

4

Include an informative subject. Every email service will let you type a subject or title for your email in the “Subject” box.

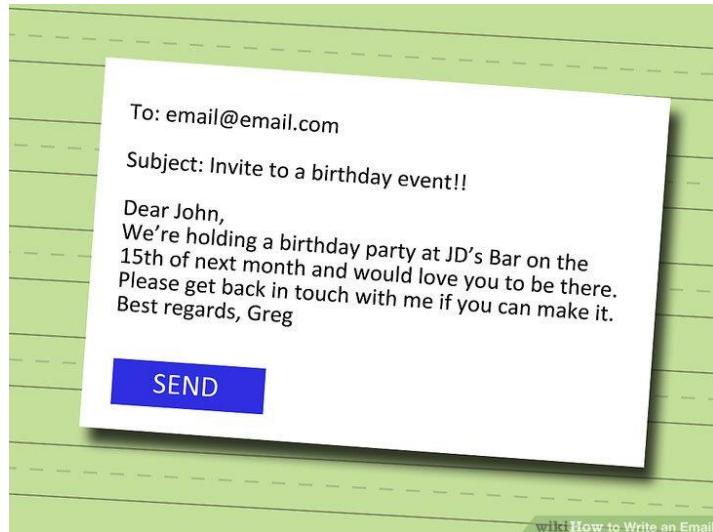
- The subject should be brief, but it should also give the recipient some idea of what the email is about.
 - For example, a casual email to a friend could simply say “What's Up?” If you are emailing with a question about an assignment, though, the subject line might read something like “Math homework.”
 - Similarly, a question to a supervisor or professor could be labeled with a subject line like “Question” or “Question about...” followed by a brief label describing the topic in question.
- Note that a message without a subject will appear in a recipient's inbox with the label of “(no subject).”



5

Write the body of your email. The body of your email should be written in the large text box below the subject line.

- The body of each email should typically include a salutation, message, and closing.
- The nature of email is fast, so you should generally keep the length of your message fairly short.



6

Hit the "Send" button. After you finish typing your email, review it to verify that there are no spelling or grammar mistakes and that the message clearly addresses the matter you wanted to bring up. If the email is ready, hit the “Send” button on the message box in order to send it away to the listed recipients.

Practical No. 5

1. Explain Green Computing with its advantages.

Answer:

What is Green Computing:

1. **Green Computing** refers to durable computing of the environment. This reduces the use of electricity as well as power and reduces environmental waste when we are using a computer.

2. It **Computing** has the same goal with green chemistry, which is now the life of the product and makes the product more energy efficient, the abandoned product and factory waste are more easily recycled and to be biodegradable, less Dangerous Use Content.

3. There are different **objectives of green computing** are:

- To minimize the implementation of hazardous products.
- More production of energy efficiency.
- To use the recyclability of wasted product and factory wasted products.
- To design proper algorithms for improve the computer’s efficiency

ADVANTAGES OF GREEN COMPUTING :

- 1) Green computing technique reduces the energy consumption which results into low carbon dioxide emission.
- 2) By using green computing techniques, we can also save money that was spent in extra usage of energy and resources.
- 3) Green computing also applies changing government policy to encourage recycling.
- 4) Green computing also removes the risk which is existing in the laptop such

as chemical known to cause cancer or nerve damage etc.

5) Use preserve resources which use less energy to produce use and dispose of product.

2. What is E-waste? What can be done to reduce the impact of

E-waste? Answer:

What is E-waste?

1.E-waste is electronic products that are unwanted, not working, and nearing or at the end of their “useful life.” Computers, televisions, VCRs, stereos, copiers, and fax machines are everyday electronic products.

2.The ongoing challenge of how best to dispose of used and unwanted electronics isn’t a new one and dates back at least to the 1970s. But a lot has changed since then, particularly the number of electronics being discarded today.

3.We also have something else today: a term for this issue. After several terms got suggested, including “Digital rubbish,” a consensus formed around the simple word “e-waste.”

What can be done to reduce the impact of E-waste?

1. Stem the Spread

Before buying a brand new PC or other device, the Environmental Protection Agency (EPA) suggests you first consider upgrading the hardware or software. Many computers can have memory and performance enhancing features added to them. Deleting or zipping information can free up hard drive space. Also, uploading files to an online service, flash drive, or external storage can also boost performance. In addition, IFixIt.com offers many easy-to-follow videos to help troubleshoot problems with your electronic devices, preventing you from having to throw them away.

2. Sell or Donate

There are many resources online for selling electronics that still work: craigslist, eBay, Usell, Gazelle, ecoatm, iReTron, and Glyde, to name but a few. Calling your local Goodwill or secondhand shop is another alternative; you may be surprised what they accept. Do you have an old cell phone to donate? Give cellphonesforsoldiers.com a look or sellmycellphones.com. Search your area for a local schools, charities, or organizations that may want your old

electronics. A good way to do this is with www.cristina.org.

3. Go Local

Know where your local electronics collection centers are. Apple will take back their products, Staples accepts electronics items, and Best Buy will take almost any E-waste. You can also look for a local E-Steward-certified recycler in your area. This can be done by going onto e-stewards.org and selecting the “Find a recycler” tab. The EPA also offers a search feature to locate your electronic item, as well as to determine whether the manufacturer will take it back or offers mail-in options

4. Educate and Organize

Now that you are a residential expert on E-waste, educate your neighbors and local businesses about pro recycling. By getting these electronics back into the recycling stream you can reduce the load on the mining, processing, manufacturing, and transport industries—in turn, reducing pollution. Not to mention, organizing a local drive to clean out old electronics can make a trip to the local recycling center much more economical. For those in the San Francisco Bay area, Green Citizen.com organizes pickups; the company also offers mail-in programs for those who don’t.

5. Talk to Government Officials

As noted above, there currently is no mandatory federal recycling legislation. Contact your Congressional representatives and let them know your stand on E waste.

3. What are the benefits of going paperless.

1. Saves Time

Time spent filing, organizing, and searching for paper documents is time that could be spent on more productive tasks. Digitized documents are stored in a central repository, which is basically a well-organized digital filing cabinet where all of your documents live.

Using a digital document management system, you’ll get to harness the same powerful search abilities that you’re used to using on Google. This means employees can find files at the click of a button, much more quickly than the laborious, manual process of searching for a specific file in a buried folder.

Employees are able to use this extra time on revenue-generating projects.

2. Saves Space

Paper takes up a lot of space – as do filing cabinets and space to store those filing cabinets. Books and bookshelves are bulky, too. What's worse, paper keeps piling up, oftentimes accumulating more quickly than it can be sorted and organized. This is particularly true of industries that have long mandatory retention periods for paperwork like the financial industry.

Digitizing files allows you to store all documents either on an on-premises server or in the cloud. Digital file folders in a repository require much less space than a physical records archive.

3. Saves Money

Going digital improves process efficiency, saving you money. Paperless offices can process a much larger volume of paperwork compared to traditional offices in the same amount of time.

Further, digitization reduces money spent on paper, printers, ink, postage, office space for files and employee time to manage paperwork.

4. Eases Transfer of Information

Document management software offers a simple process for saving documents. The software easily compiles digital documents using scanners, mobile capture using a camera on a phone or tablet or importing any file type (.docx, .pdf, image files). Many commonly used applications, like Microsoft Office and Adobe Acrobat, integrate with document management systems and have native plugins which allow you to file your document into your content management system with just one click.

5. Promotes the Environment

Manufacturing paper products produce greenhouse gases, causing deforestation and global warming. Recycling can offset some of the environmental impact, but not by much. Most paper eventually ends up in a landfill. Further, ink and toners contain volatile compounds and non-renewable substances which are damaging to the environment. It is much more sustainable to simply reduce paper use altogether by switching to a paperless office.

6. Boosts Security

Physical documents are hard to track – reams of paper can get lost, misfiled or destroyed without anyone noticing. It can also be difficult to monitor the access, printing and copying of sensitive files. Document management software has advanced security capabilities that can tackle these challenges. System administrators can set-up granular access rights, which assign permissions at the document level (e.g., settings based on the type of document), user level (e.g., settings based on person's job function), or system level (e.g., overarching security for all data in the system).

4. What is Github? Give advantages of using Github.

What is GitHub?

1. GitHub is a for-profit company that offers a cloud-based Git repository hosting service. Essentially, it makes it a lot easier for individuals and teams to use Git for version control and collaboration.
2. GitHub's interface is user-friendly enough so even novice coders can take advantage of Git. Without GitHub, using Git generally requires a bit more technical savvy and use of the command line.
3. GitHub is so user-friendly, though, that some people even use GitHub to manage other types of projects – like writing books.
4. Additionally, anyone can sign up and host a public code repository for free, which makes GitHub especially popular with open-source projects.

Give advantages of using GitHub:

1. It makes it easy to contribute to your open-source projects To be honest, nearly every open-source project uses GitHub to manage their project. Using GitHub is free if your project is open source and includes a wiki and issue tracker that makes it easy to include more in-depth documentation and get feedback about your project. If you want to contribute, you just fork a project, make your changes and then send them a pull request using GitHub web interface.

2. Documentation

By using GitHub, you make it easier to get excellent documentation. Their help section and guides have articles for nearly any topic related to git that you can think of.

3. Showcase your work

Are you a developer and wishes to attract recruiters? GitHub is the best tool you can rely on for this. Today, when searching for new recruits for their project, most companies look into the GitHub profiles. If your profile is available, you will have a higher chance of being recruited even if you are not from a great university or college.

4. Markdown

Markdown allows you to use a simple text editor to write formatted documents. GitHub has revolutionized writing by channeling everything through

Markdown: from the issue tracker, user comments, everything. With so many other programming languages to learn for setting up projects, it's really a big benefit to have your content inputted in a format without having to learn yet another system.

5. GitHub is a repository

This was already mentioned before, but it's important to note, GitHub is a repository.

What this means that it allows your work to get out there in front of the public. Moreover, GitHub is one of the largest coding communities around right now, so it's wide exposure for your project.

6. Track changes in your code across versions

When multiple people collaborate on a project, it's hard to keep track revisions—who changed what, when, and where those files are stored. GitHub takes care of this problem by keeping track of all the changes that have been pushed to the repository. Much like using Microsoft Word or Google Drive, you can have a version history of your code so that previous versions are not lost with every iteration.

7. Integration options

GitHub can integrate with common platforms such as Amazon and Google Cloud, services such as Code Climate to track your feedback, and can highlight syntax in over 200 different programming languages.

5. Write a program using PEP8 rules.

Code:

```
File Edit Format Run Options Window Help
l = [1, 2, 3, 4, 2, 4, 1, 2]
from collections import defaultdict
Helper Function
def ltd(l):
    """Convert list to Defaultdict"""
    d = defaultdict(int)
    for i in l:
        d[i] += 1
    return d
print(ltd(l))
```

Output:

```
defaultdict(<function <lambda>>, {1: 2, 2: 3, 3: 1, 4: 2})
```

PRACTICAL 6

Implementing coding practices in python using PEP8

PEP8 is a style guide for python code. PEP stands for Python Enhancement Proposal, and they describe and document the way python language evolves. It is a document that describes new

features proposed for python and document aspects of python, like design and style. It promotes a very readable and eye-pleasing coding style.

Somethings to keep in mind are:

1. Use 4-space indentation and no

tabs. Example:

```
1 # Aligned with opening delimiter.
2 grow = function_name(variable_one, variable_two,
3 | variable_three, variable_four)
4 # First line contains no argument. Second line onwards
5 # more indentation included to distinguish this from
6 # the rest.
7 def function_name (
8 | variable_one , variable_two , variable_three ,
9 | variable_four ):
10 | print (variable_one) |
```

2. Use docstrings: there are both single and multi-line docstrings that can be used in python. However, the single line comment fits in one line, triple quotes are used in both cases.

These are used to define a particular program or define a particular function. Example:

```
1 """This is single line docstring"""
2 | """This is
3 | a
4 | multiline comment"""
```

3. Wrap lines so that they don't exceed 79 characters: The Python standard library is conservative and requires limiting lines to 79 characters. The lines can be wrapped using parenthesis, brackets, and braces. They should be used in preference to backslashes.

```
1 with open ( '/path/from/where/you/want/to/read/file' ) as file_one, \
2 | open ( '/path/where/you/want/the/file/to/be/written' , 'w' ) as file_two:
3 | | file_two.write(file_one.read())
```

Example:

4. While naming the function or methods always use self for the first argument. If the function argument name matches with reserved words then it can be written with a

trailing comma.

Example:

```
1 # Python program to find the
2 # factorial of a number provided by the user.
3 |
4 # change the value for a different result
```

```
num = 7
# uncomment to take input from the user
#num = int(input("Enter a number: "))
factorial = 1
# check if the number is negative, positive or zero
if num < 0 :
    print ( "Sorry, factorial does not exist for negative numbers" )
elif num == 0 :
    print ( "The factorial of 0 is 1" )
else :
    for i in range ( 1 ,num + 1 ):
        factorial = factorial * i
    print ( "The factorial of" ,num, "is" ,factorial) |
```

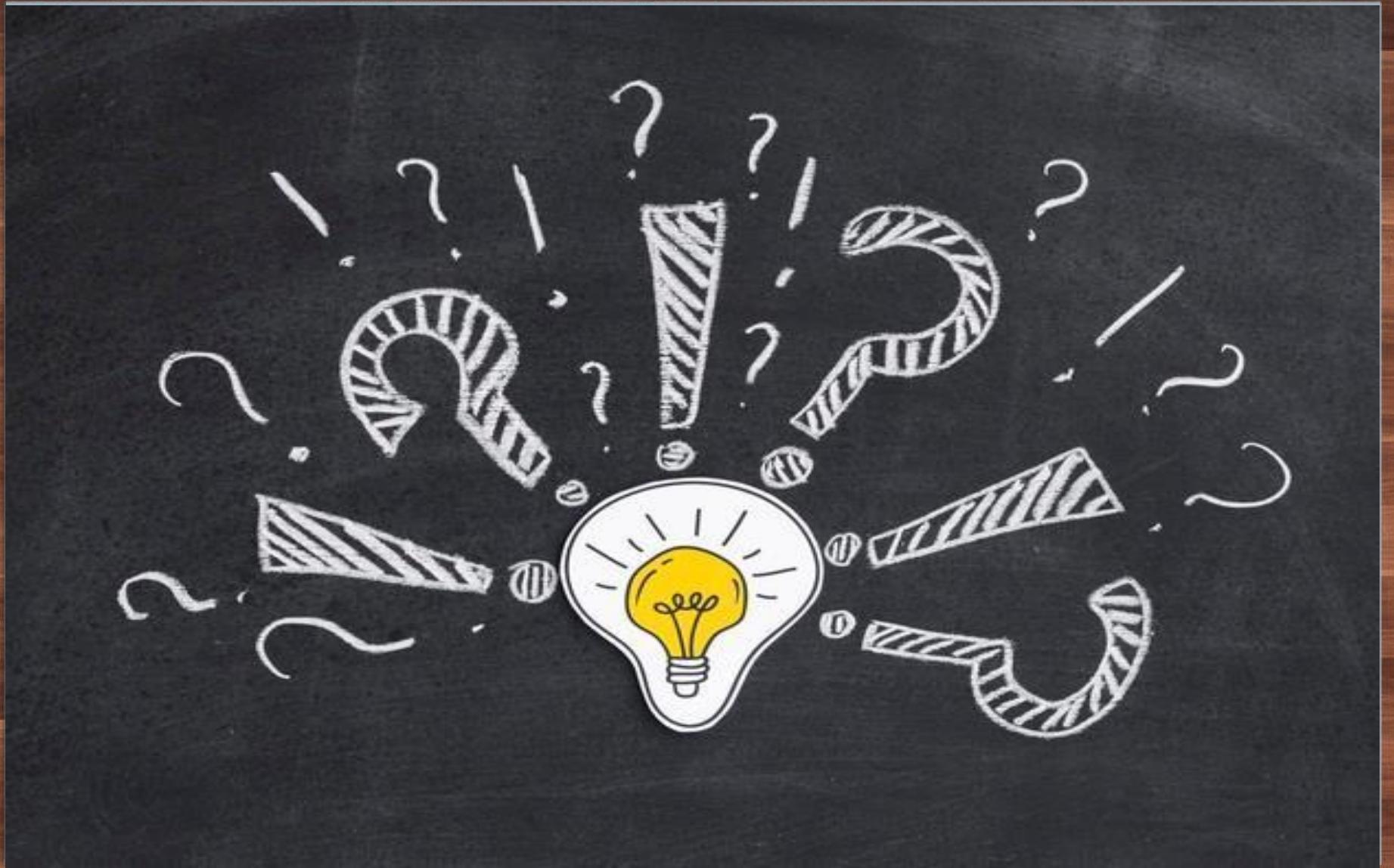
Practical No. 8



1.

What is EDI?

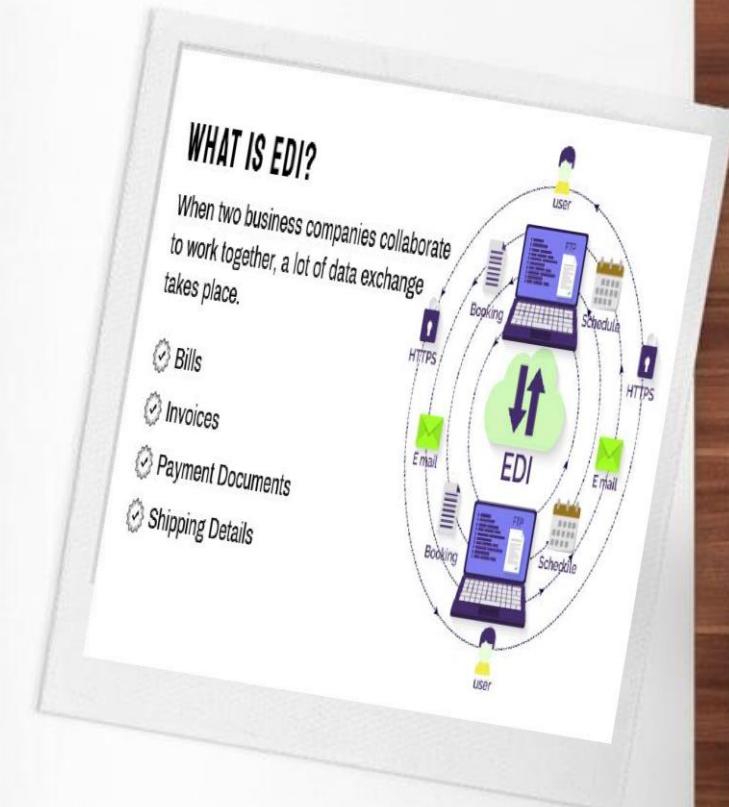




0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

What is EDI?

“Electronic Data Interchange (EDI) is the computer-to-computer exchange of business documents in a standard electronic format between business partners.”



Four Types Of EDI



Computer- To- Computer

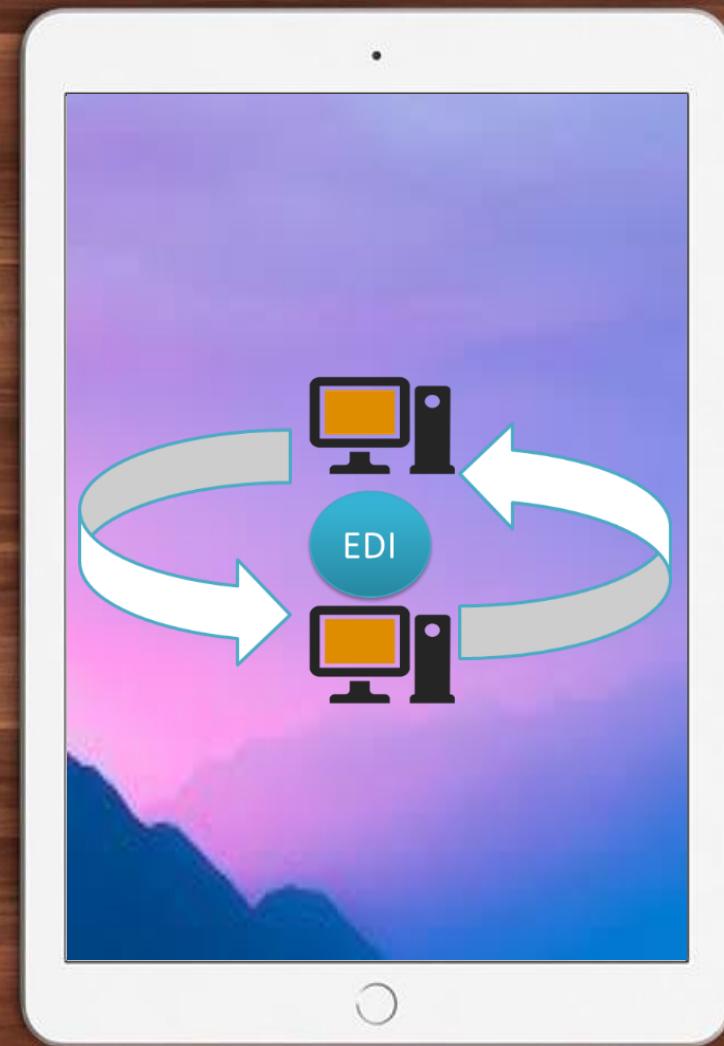


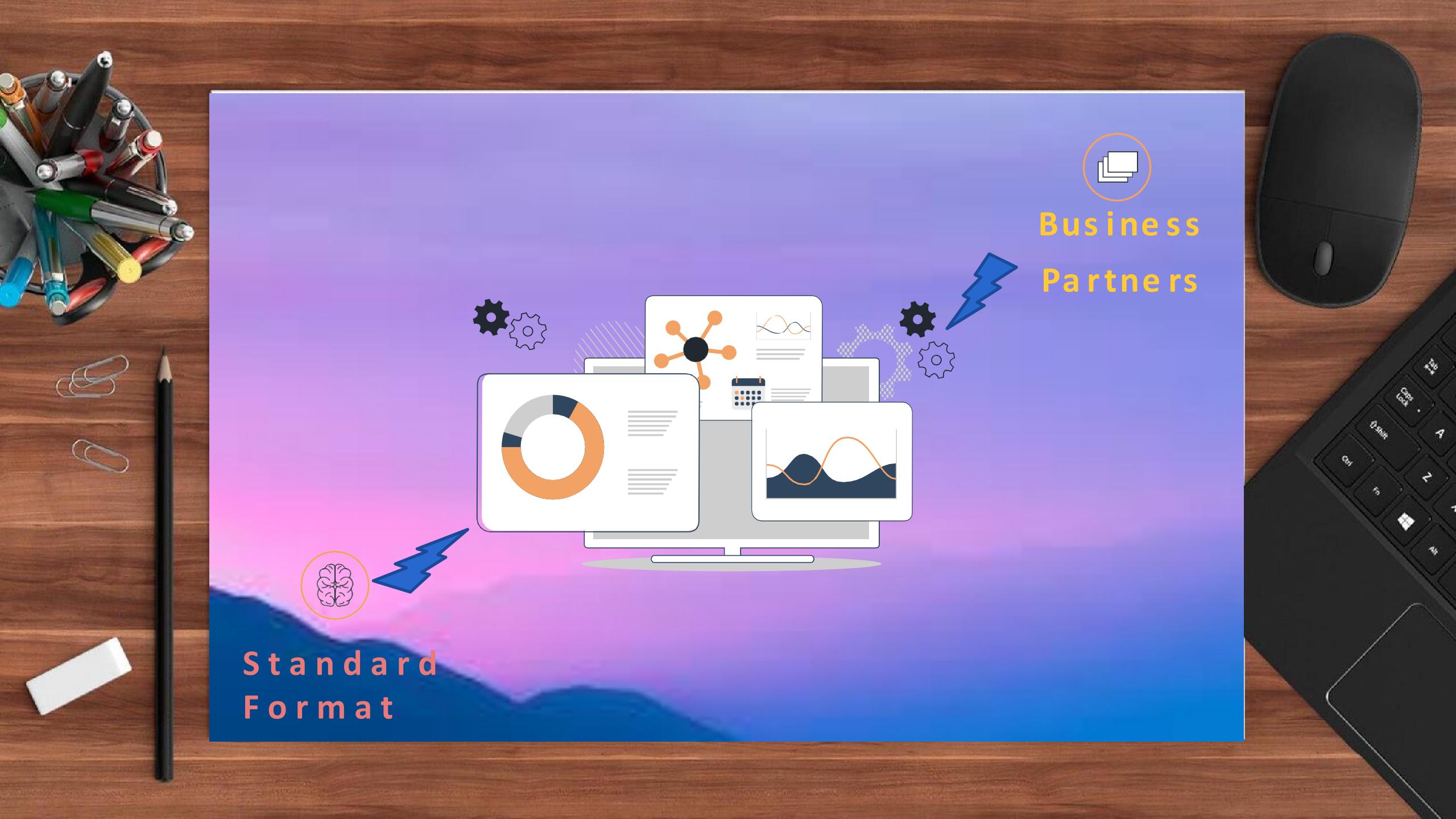
Business
Document



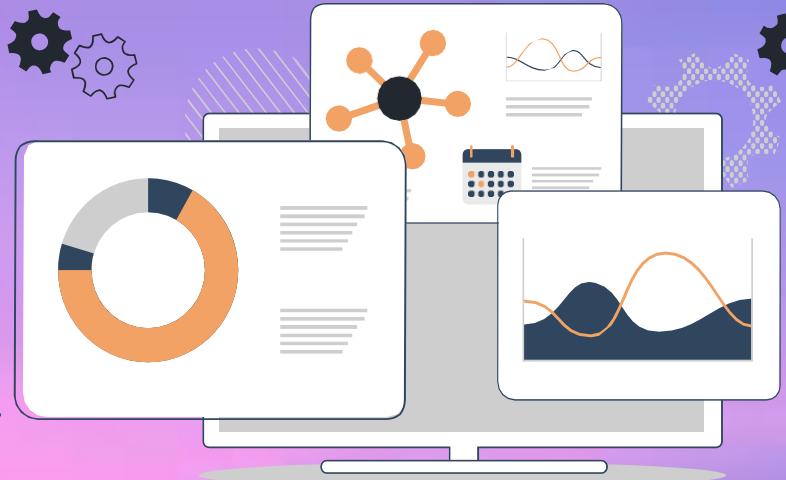


The EDI process looks like this - no paper, no people involved:





Standard
Format



Business
Partners

A typical manual process looks like this, with lots of paper and people involvement:



UNA:+.?*

UNB+UNOC:4+SENDERID:ZZ+RECEIVERID:ZZ+20200901:0201+12911+++++1'

UNH+1+ORDERS:D:01B:UN:EAN010'

BGM+220+L8266355+9'

DTM+137:20080901:102'

NAD+BY+CUSTOMERID'

NAD+SU+SUPPLIERID'

RFF+YC1:VENDORCODE'

NAD+DP+SHIPTO'

RFF+YC1:1234567'

LIN+1++EAN1234567890:EN'

PIA+5+CUSTCODE678:IN'

QTY+21:108:PCE'

UNS+S'

UNT+12+1'

UNZ+1+12911'

Example



2.

How Does EDI Works



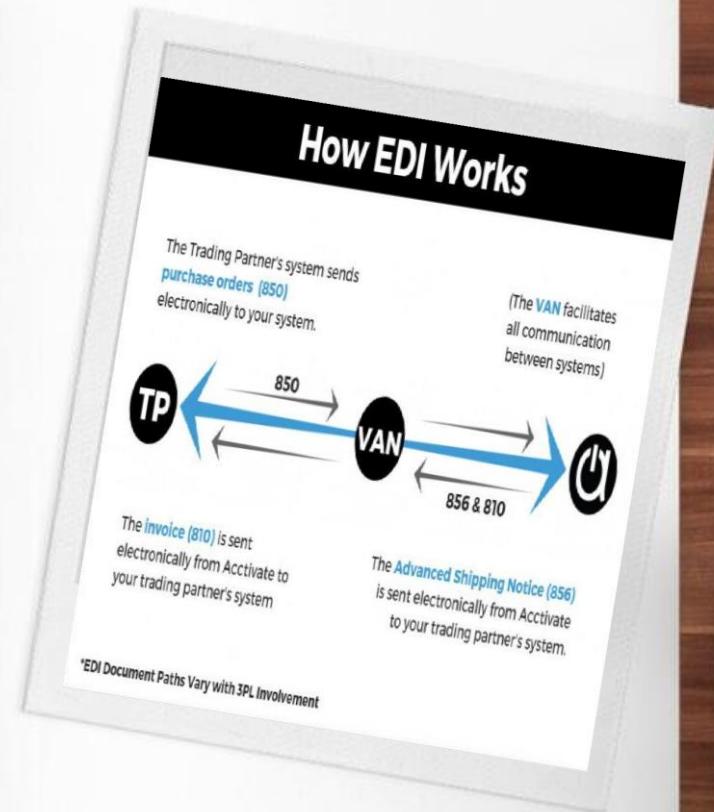
How Does EDI Work?

There are 3 steps to sending EDI documents

- Prepare the documents,

Translate the documents into EDI format,

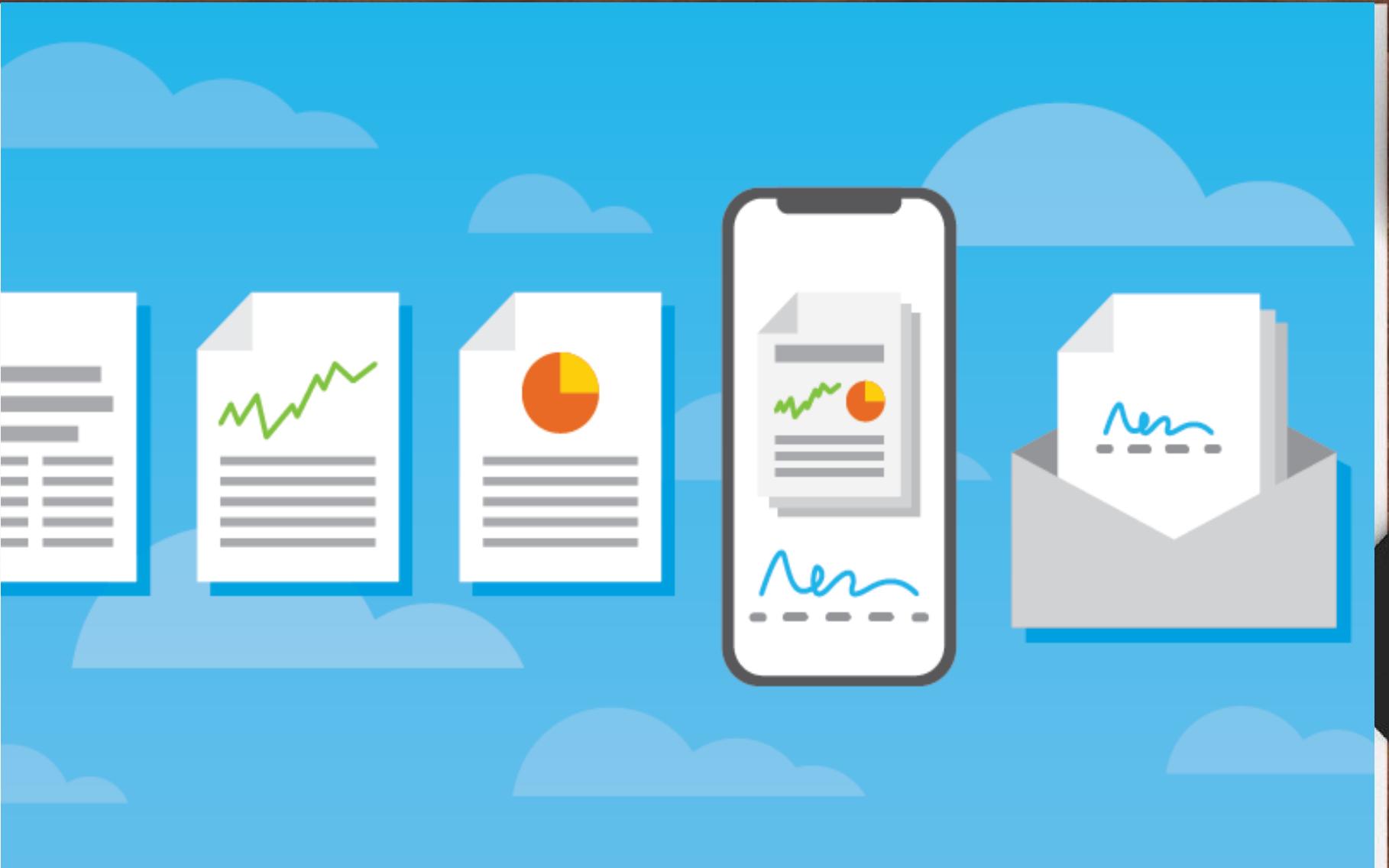
Transmit the EDI documents to your partner.



Four Steps for working in EDI Works

01

**STEP1: PREPARE THE
DOCUMENT TO BE
SENT**





03

STEP3: CONNECT AND TRANSMIT YOUR EDI DOCUMENT TO YOUR BUSINESS PARTNER

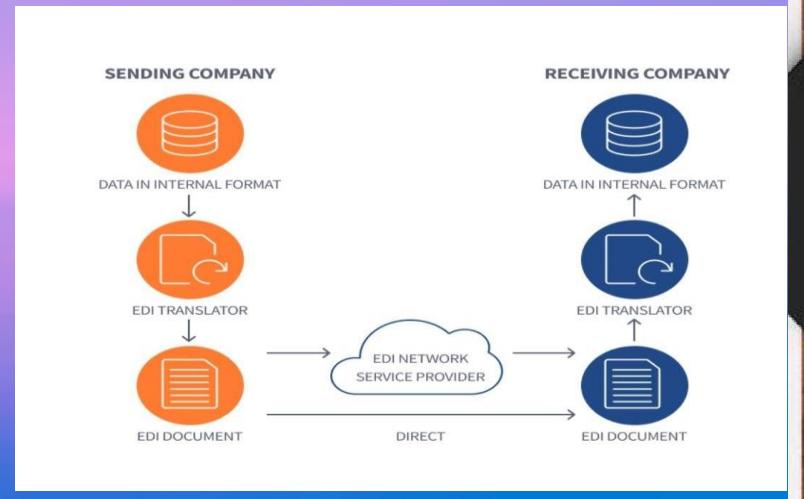


02

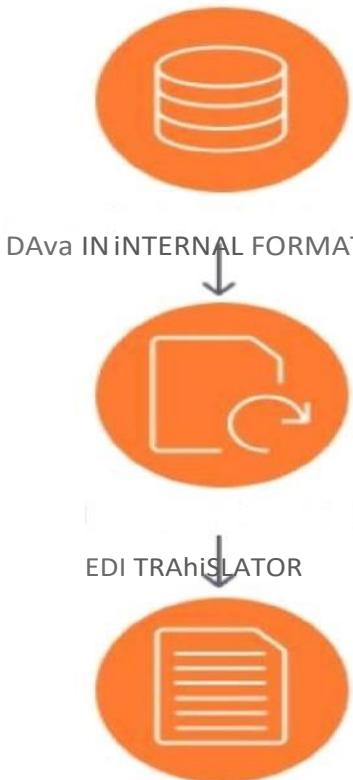
STEP2: TRANSLATE THE DOCUMENT INTO EDI FORMAT



POS.	SEG. ID	NAME	USAGE	REPEAT	LOOP REPEAT
0100	ST	Transaction Set Header	R	1	
0200	AK1	Functional Group Response Header	R	1	
LOOP ID - 2000 - AK2 TRANSACTION SET RESPONSE HEADER					
0300	AK2	Transaction Set Response Header	S	1	
LOOP ID - 2100 - AK2/IK3 ERROR IDENTIFICATION					
0400	IK3	Error Identification	S	1	
0500	CTX	Segment Context	S	9	
0500	CTX	Business Unit Identifier	S	1	
LOOP ID - 2110 - AK2/IK3/IK4 IMPLEMENTATION DATA ELEMENT NOTE					
0600	IK4	Implementation Data Element Note	S	1	
0700	CTX	Element Context	S	10	
0800	IK5	Transaction Set Response Trailer	R	1	
0900	AK9	Functional Group Response Trailer	R	1	
1000	SE	Transaction Set Trailer	R	1	



SENDING COMPANY



EDI DOCUMENT

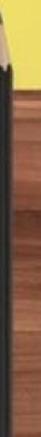
RECEIVING COMPANY



EDI DOCUMENT

DIRECT

Example



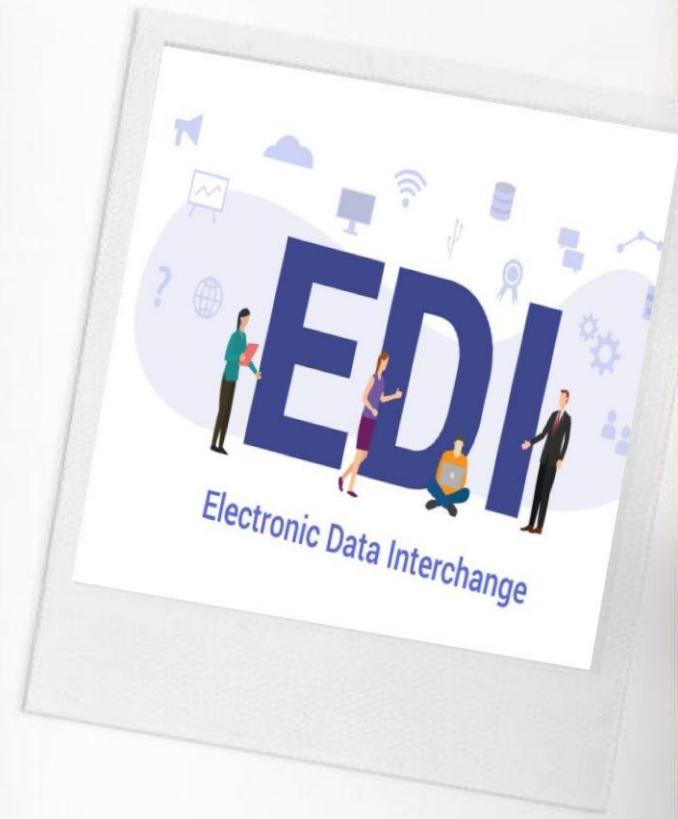
3.

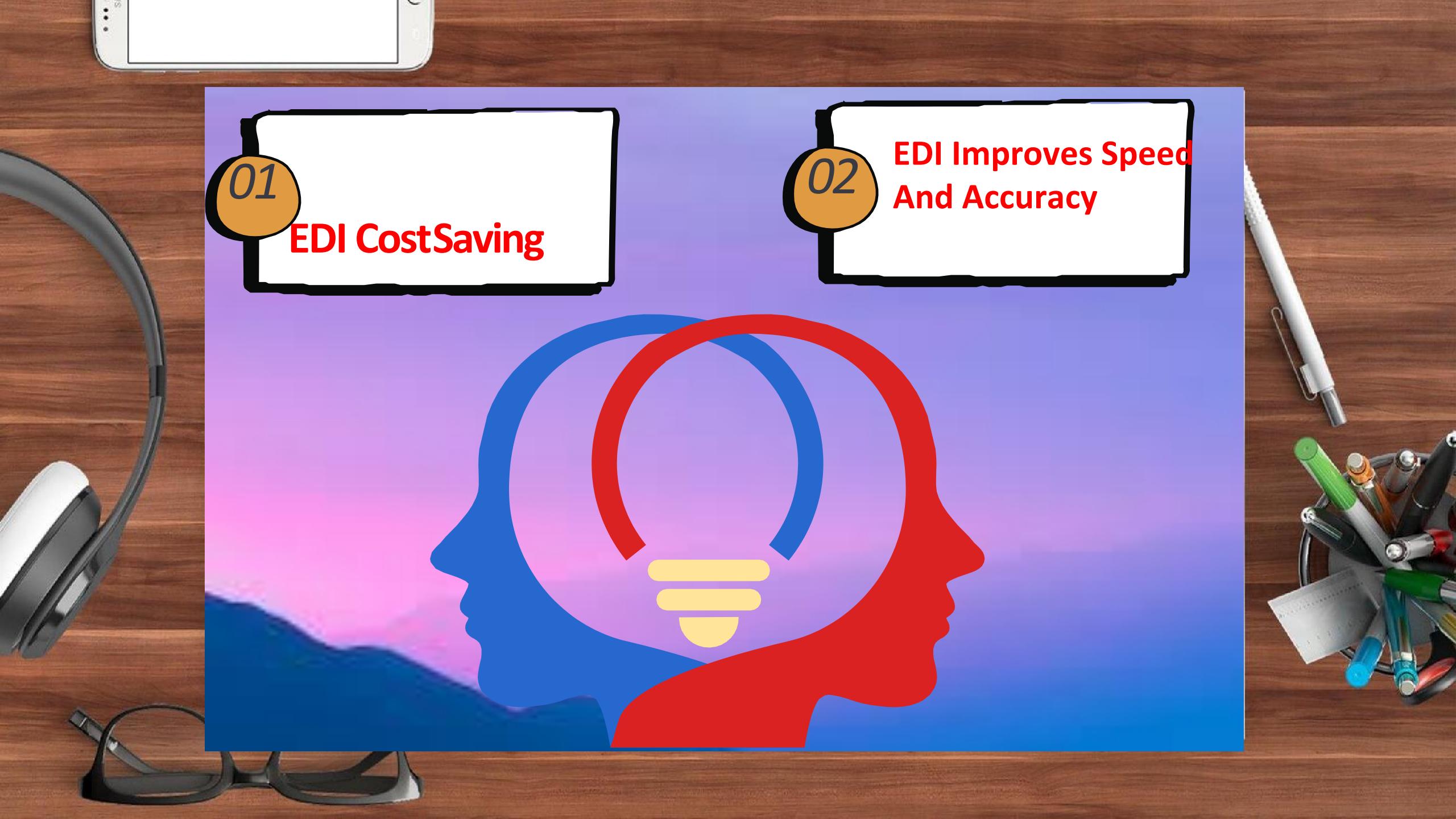
Benefits Of EDI



Benefits Of EDI(Electronic Data Interchange)

- EDI continues to prove its major business value by lowering costs, improving speed, accuracy and business efficiency. The greatest EDI benefits often come at the strategic business level.
- EDI continues to prove its worth as an electronic message data format. This research states that “the annual volume of global EDI transactions exceeds 20 billion per year and is **still** growing.”
- For buyers that handle numerous transactions, using EDI can result in millions of dollars of annual savings due to early payment discounts





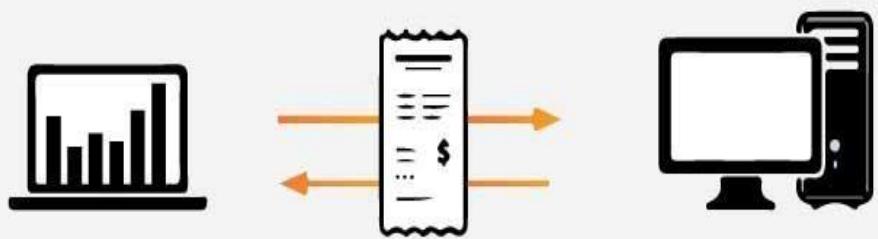
01

EDI CostSaving

02

**EDI Improves Speed
And Accuracy**

EDI ELECTRONIC DATA INTERCHANGE



TRADITIONAL
DATA
INTERCHANGE

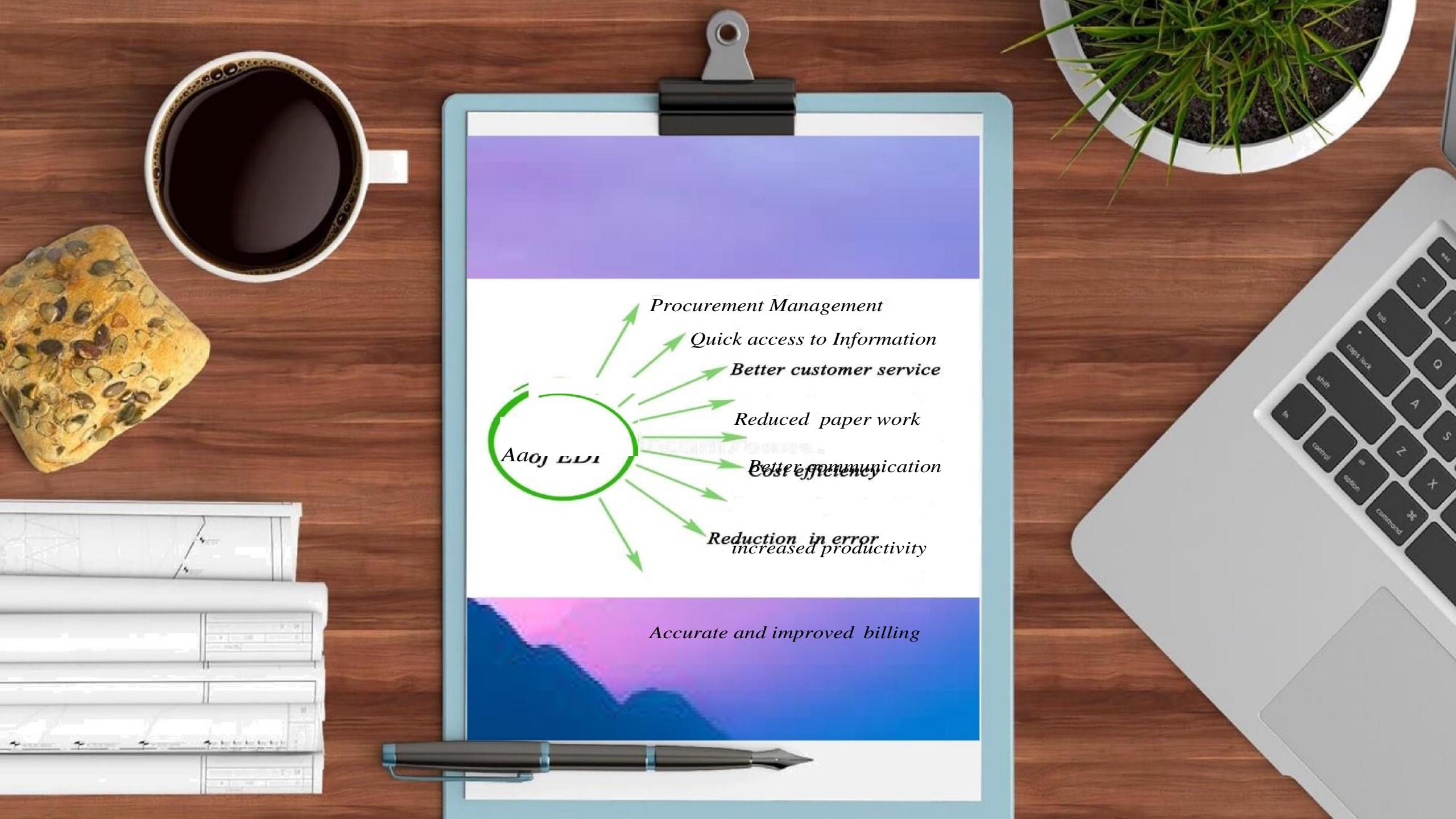
03

EDI's Impact on Business Strategy

04

EDI's Effect on Business Efficiency





Accurate and improved billing



4.

EDI Standards

EDI Standards

01

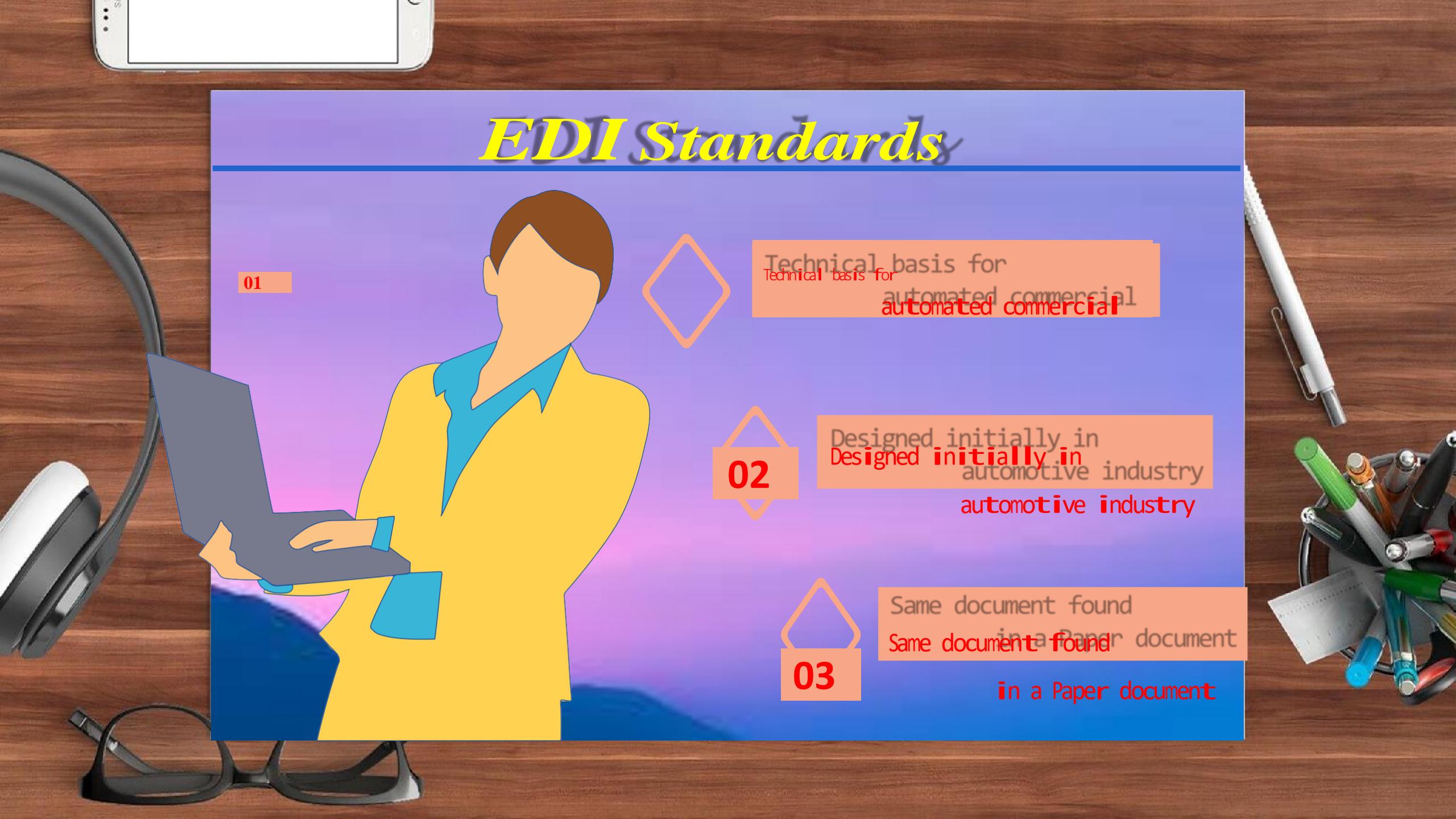
Technical basis for
automated commercial

02

Designed initially in
automotive industry

03

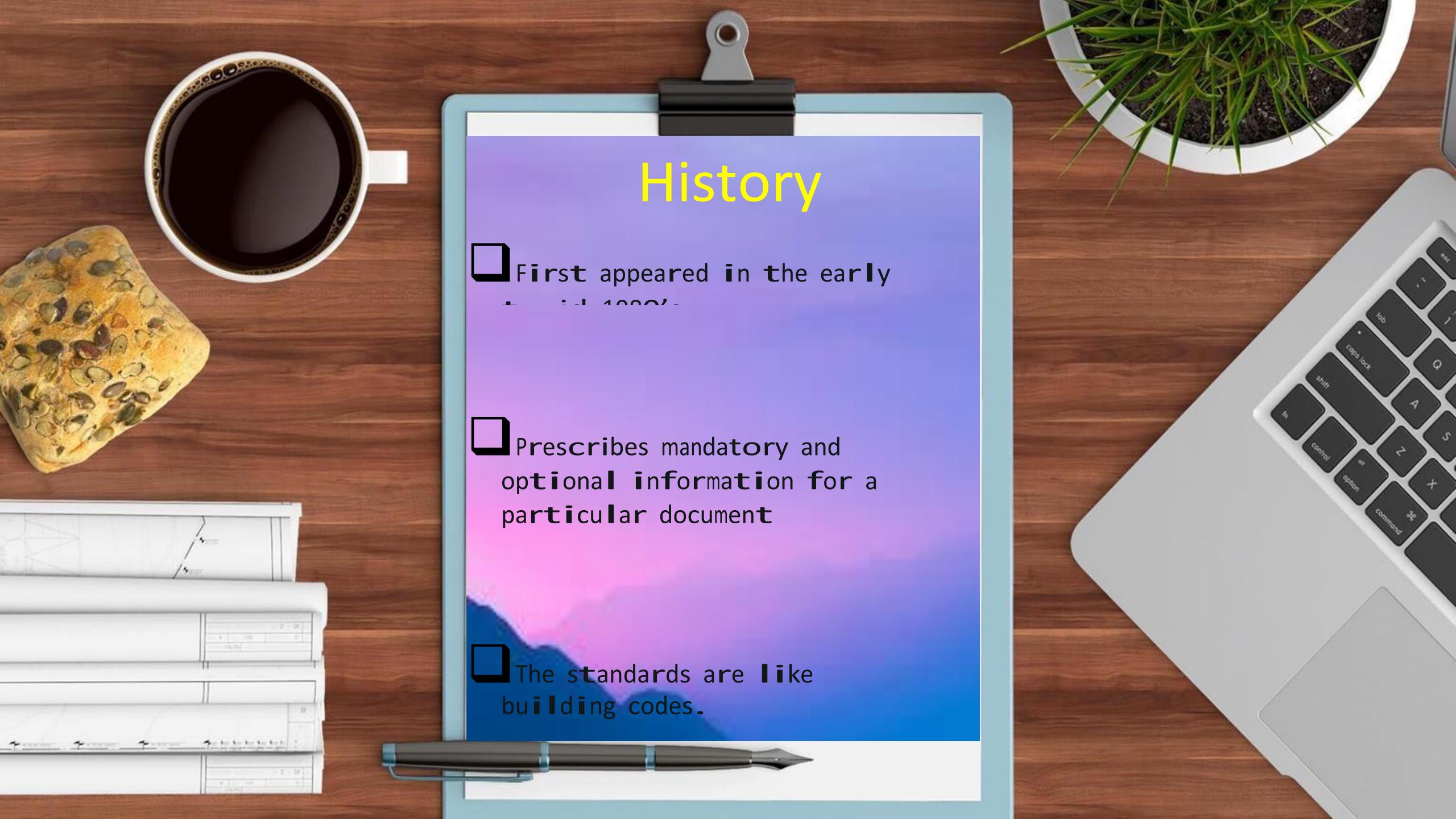
Same document found
in a Paper document





XEDI

EDI Standards

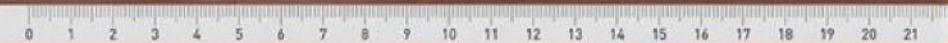
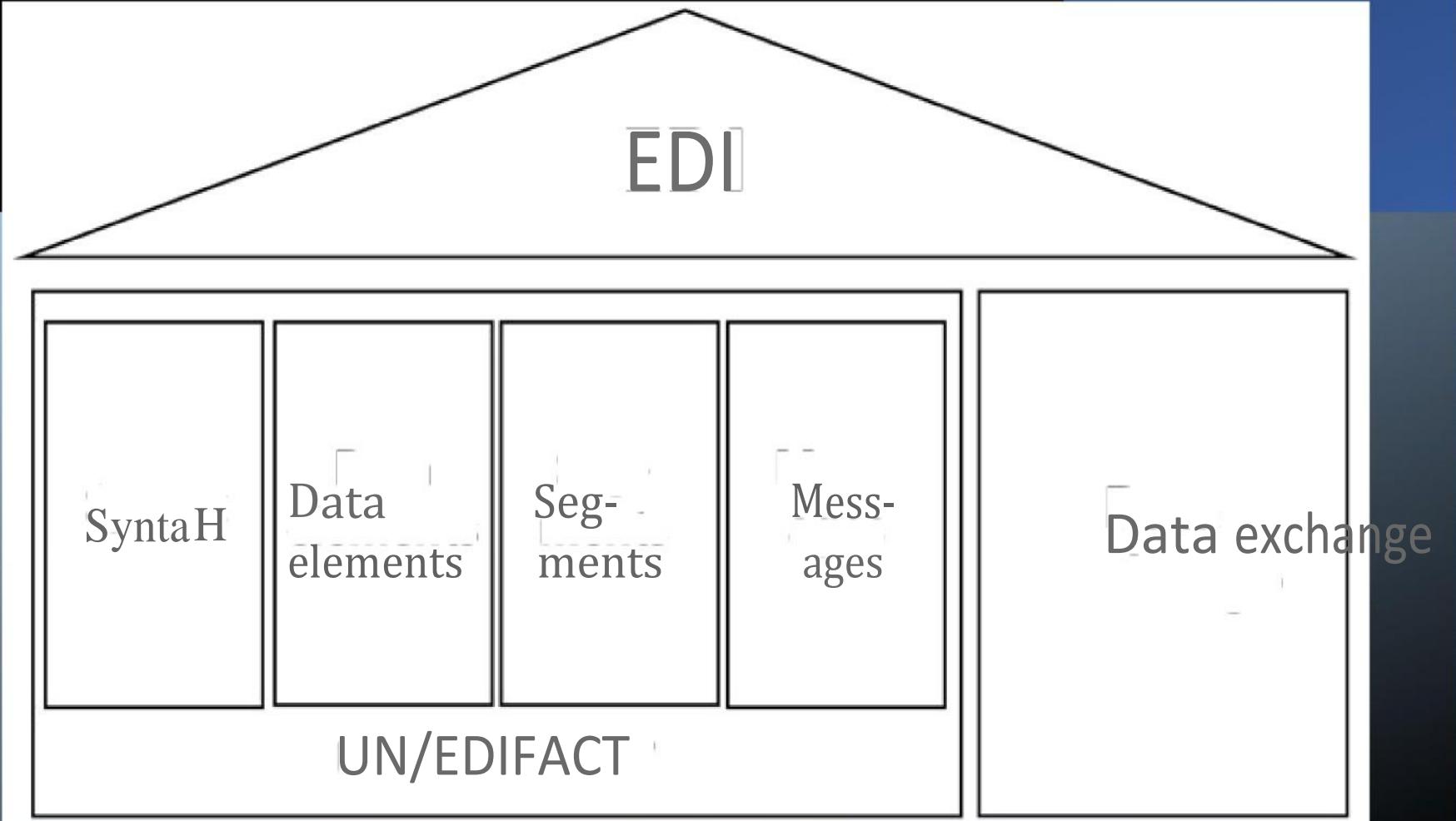


History

- First appeared in the early 1400's.
- Prescribes mandatory and optional information for a particular document
- The standards are like building codes.

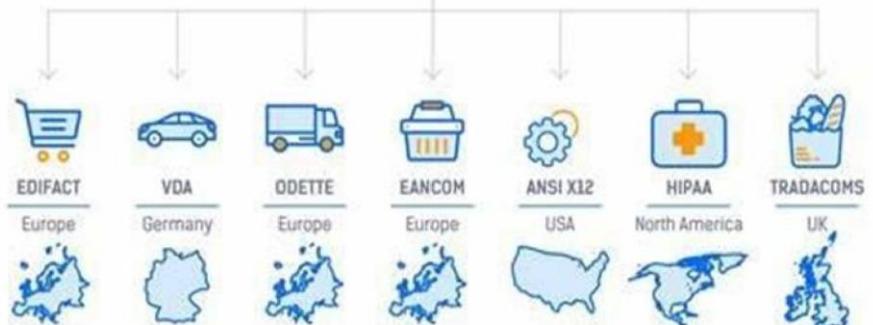
Major Point Set Of EDI Standards

- 1) The UN-recommended UN/EDIFACT
- 2) The US standard ANSI ASC X12 (X12)
- 3) GS1 EDI set of standards developed by the GS1
- 4) The TRADACOMS standard developed by the ANS
- 5) The ODETTE standard used within the European
- 6) The VDA standard used within European
- 7) HL7 - a semantic



- 8) IATA Cargo-IMP
- 9) NCPDP SCRIPT
- 10) EDIGAS

EDI standards

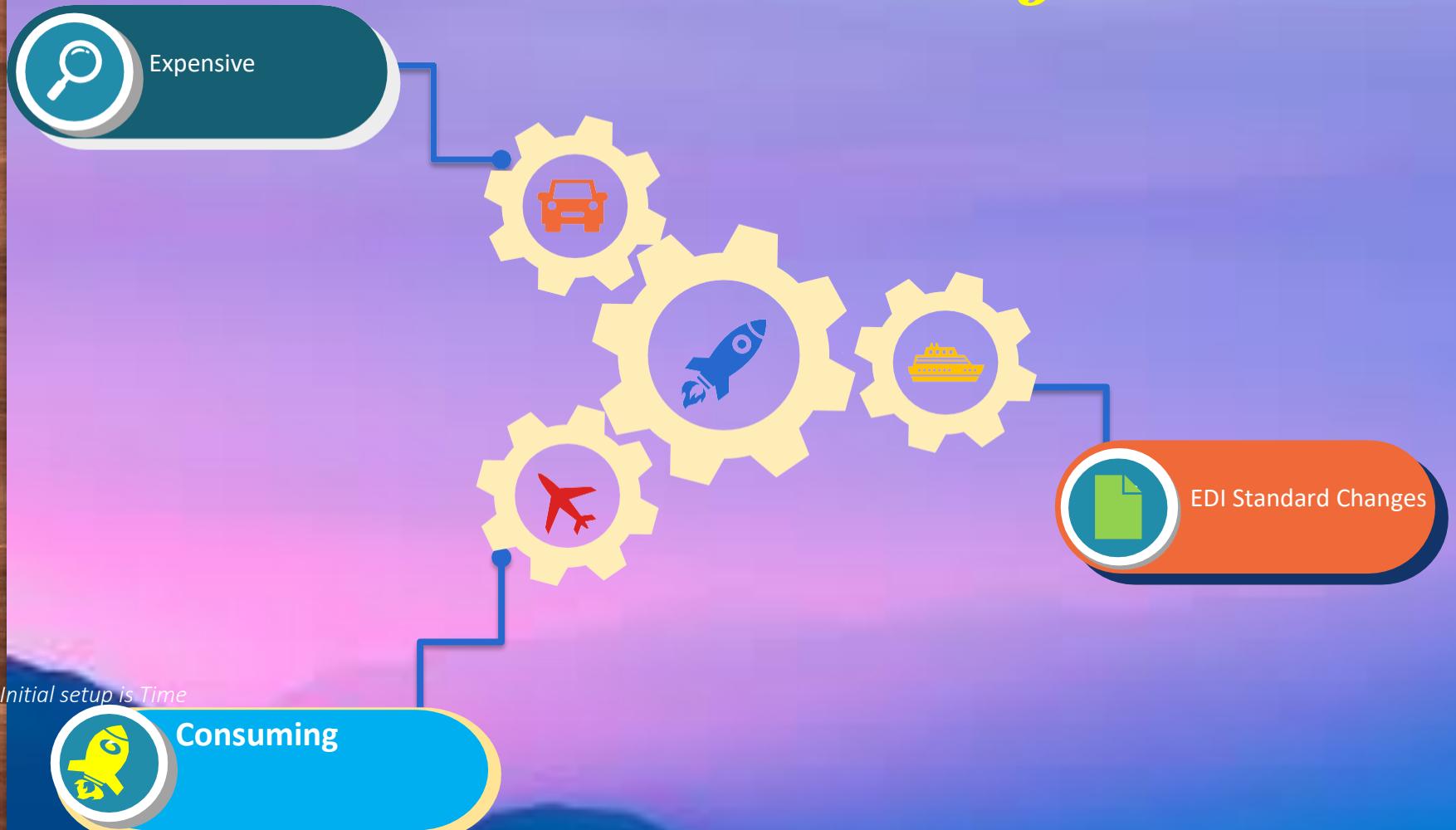


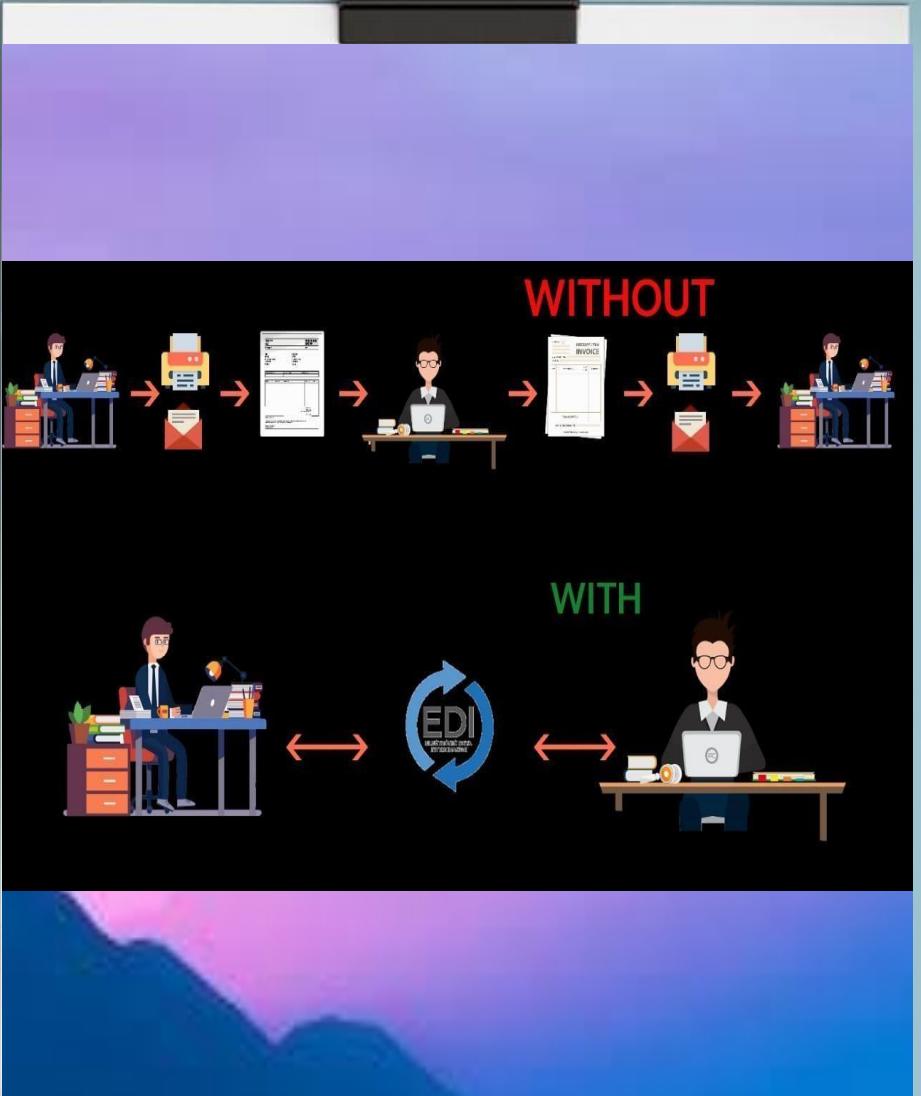
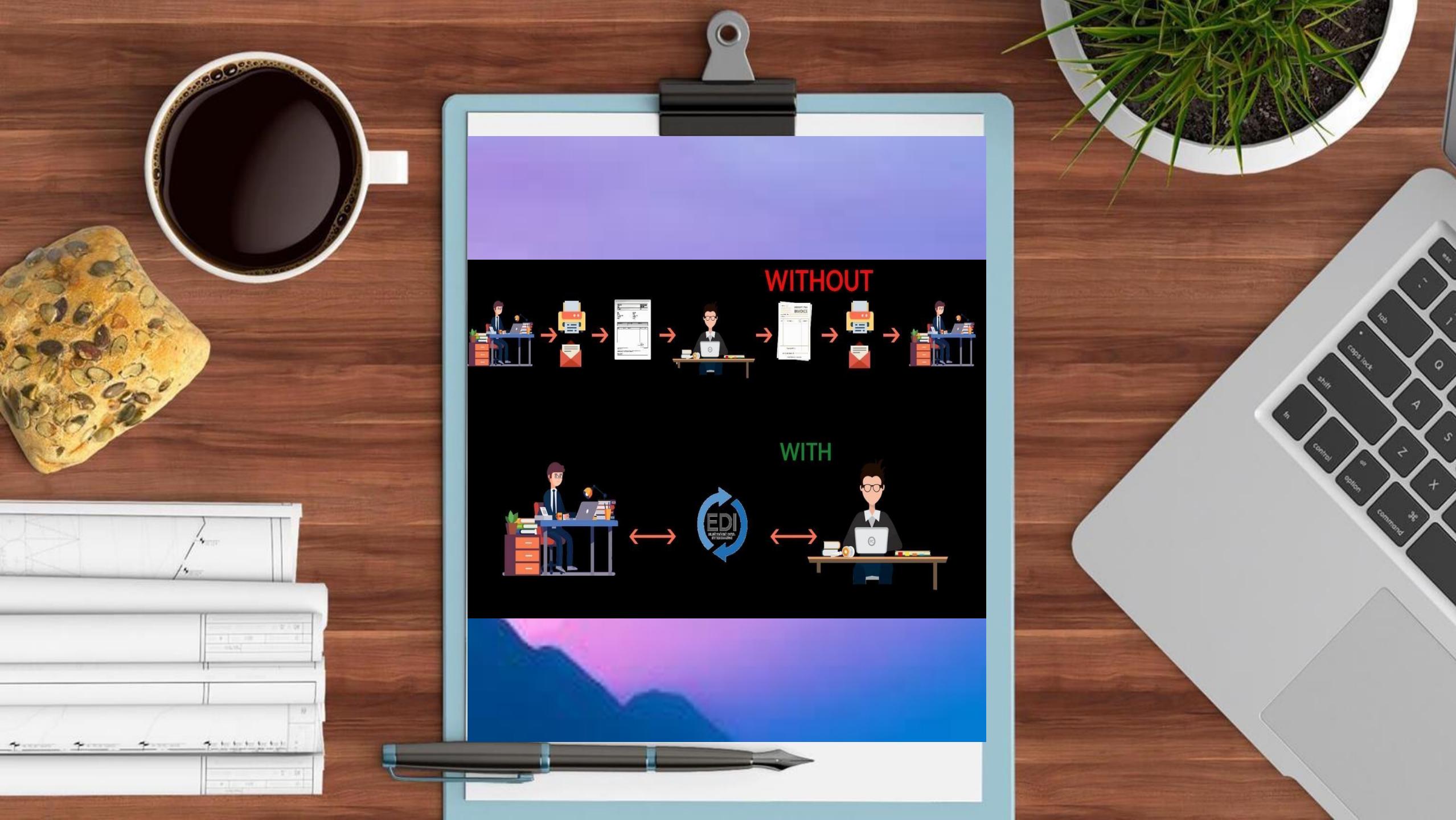
5.

Drawbacks Of EDI



Drawbacks Of EDI







THANK
YOU

