

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

# Web Technologies and Programming

## Lecture 07

# HTML Links and navigation

# Summary of Previous Lecture

- **What is HTML?**
- **Basic Structure of HTML page**
- **Body tag attributes**
- **Text formatting tags**
- **Lists**

# Outline

- 1. How to link between pages of your site (internal links)**
- 2. How to link to other sites (external)**
- 3. How to structure the folders on your web site**
- 4. Internal document references**
- 5. Link attributes**
- 6. Other Type of links**

# 1. HTML links

- **HTML links are hyperlinks.**
- **A **hyperlink** is a text or an image you can click on, and jump to another document.**

# 1. HTML links

- **HTML Links - Syntax**
- In HTML, links are defined with the **<a>** tag:
- **<a href="url">link text</a>**
- The **href** attribute specifies the destination address .
- The **link text** is the visible part

# 1. HTML links

- **HTML Links – Example**
- `<a href="http://www.w3schools.com/html/">Visit our HTML tutorial</a>`



# 1. HTML links

- The **crux** of HTML is its capability **to reference** countless other pieces of information easily on **the internet**
- A hyperlink is a text or an image you can click on, and jump to another document.
- In HTML, links are defined with the **<a></a>** tag

# 1. HTML links - Colors

- When you move the **mouse over a link**, two things will normally happen:
  - The **mouse arrow will turn** into a little hand
  - The **color of the link element** will change

# 1. HTML links

- **By default**, links will appear as follows in all browsers:
- **An unvisited** link is underlined and blue
- **A visited link** is underlined and purple
- **An active link** is underlined and red

# 1. HTML links

- **For visited link**
- `<body vlink="red">`
- **For active link**
- `<body alink="pink">`
- **For color of link**
- `<body link="ebl">`

# 1. HTML links

- **Example**

- `<style>`

**a:link** {color:green; background-color:transparent; text-decoration:none}

**a:visited** {color:pink; background-color:transparent; text-decoration:none}

**a:hover** {color:red; background-color:transparent; text-decoration:underline}

**a:active** color:yellow; background-color:transparent; text-decoration:underline}

`</style>`

# 1. HTML links

- When you link to another page in your own web site, the link is known as an **internal link**
- When you link to a different site, it is known as an **external link**
- Some other form of links are also discuss in this lecture.

# 1.1 Internal links

- Anything between the opening **<a>** tag and the closing **</a>** tag becomes part of the link that users can click in a browser
- **A Local link uses** a page name (including sub-directories if needed) as the target. It is “local” to the current server.

# 1.1 Internal links...

- **Href**
- **href** attribute specifies the URL of the page the link goes to.
- If the **href attribute is not present**, the **<a>** tag is not a hyperlink.



# 1.1 Internal links...

- **Href**
- URL used in Href can be
- The URL of the link. Possible values:
- **An absolute URL (external)**
- points to another web site (like `href="http://www.example.com/default.htm"`)
- **A relative URL (local) –**
- points to a file within a web site (like `href="default.html"`)

# 1.1 Internal links...

- **Href**
- URL used in Href can be
- Link to an element with a specified id within the page (like **href="#top"**)
- A script (like **href="javascript:alert('Hello');"**)

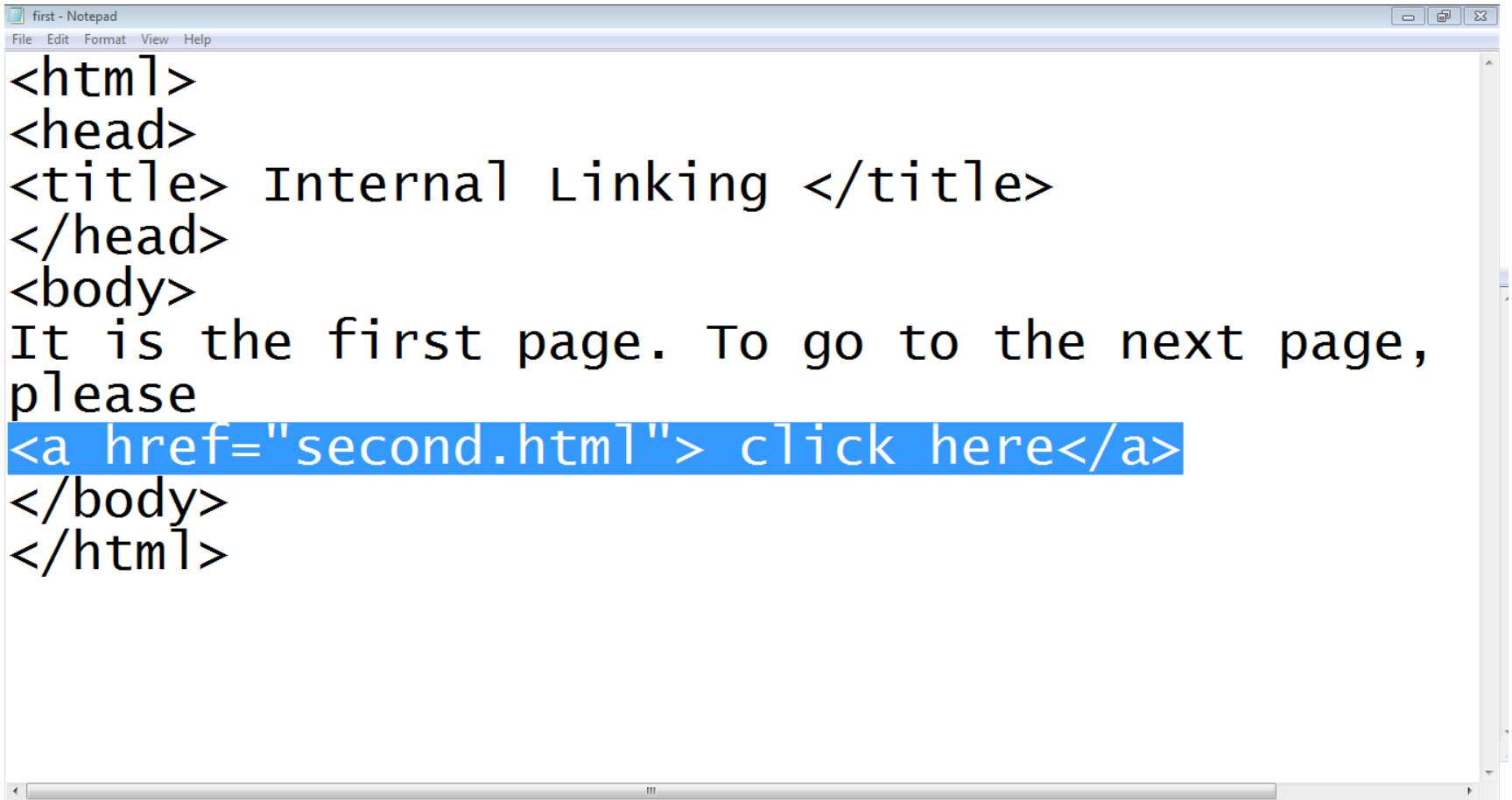
# 1.1 Internal links...

- To link **another page**, **href** attribute of opening tag of **<a>** is used
- the **value** of the href attribute is the **name of the file** you are linking to
- **For example:**
- `<a href="abc.html"> Click here </a>`

# 1.1 Internal links...

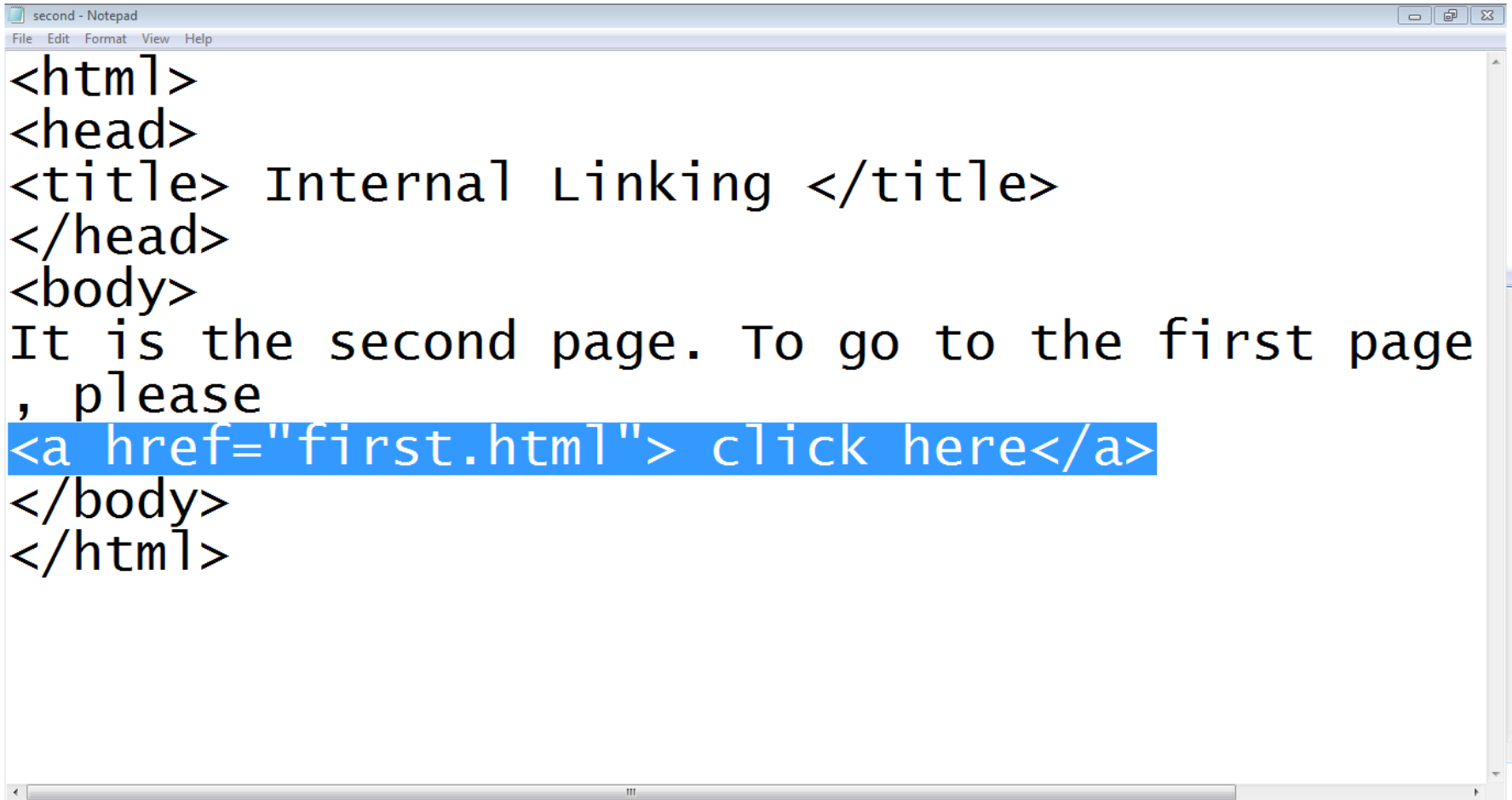
- The A stands for **Anchor**.
- The anchor tag tells the browser to anchor or to attach to something else. Every Anchor tag must have a closing or end tag (**</A>**) to signal the end of the anchor.
- HREF stands for **Hypertext REference**. It means that “this is where the link is going to.

# 1.1 Internal links...

A screenshot of a Notepad window titled "first - Notepad". The window contains HTML code for a page titled "Internal Linking". The code includes a title tag, a body tag with the text "It is the first page. To go to the next page, please", and an anchor tag with the text "click here" that links to "second.html". The anchor tag is highlighted in blue.

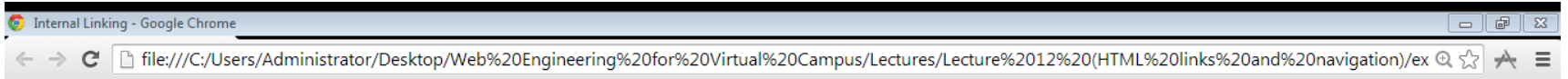
```
<html>
<head>
<title> Internal Linking </title>
</head>
<body>
It is the first page. To go to the next page,
please
<a href="second.html"> click here</a>
</body>
</html>
```

# 1.1 Internal links...

A screenshot of a Notepad window titled "second - Notepad". The window has a menu bar with "File", "Edit", "Format", "View", and "Help". The text inside the window is HTML code. The first part is the head section with a title "Internal Linking". The body section contains the text "It is the second page. To go to the first page, please" followed by an internal link "[click here](\"first.html\")". The link text is highlighted in blue. The code ends with closing tags for the body and html.

```
<html>
<head>
<title> Internal Linking </title>
</head>
<body>
It is the second page. To go to the first page
, please
<a href="first.html"> click here</a>
</body>
</html>
```

# 1.1 Internal links...



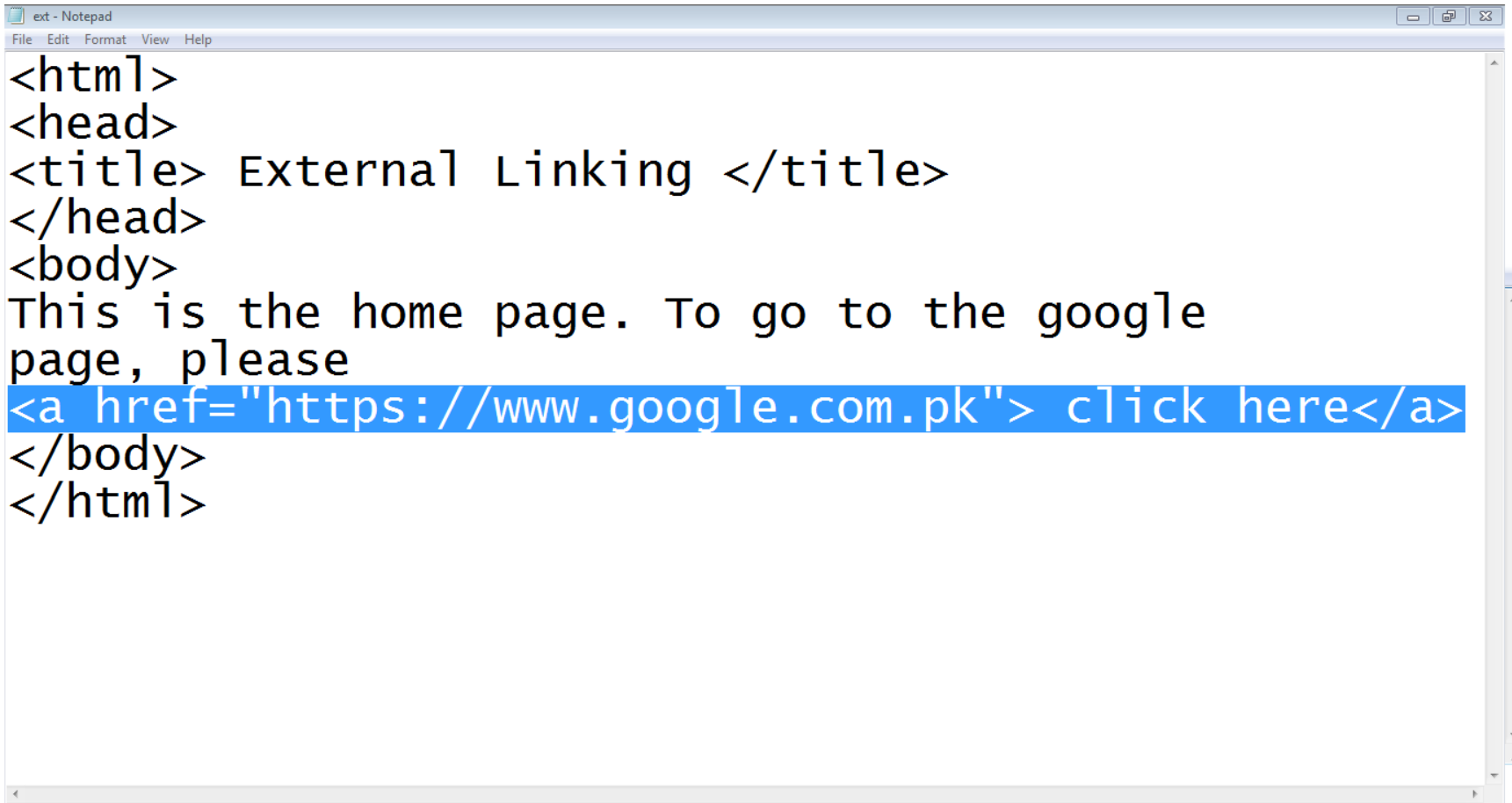
It is the first page. To go to the next page, please [click here](#)

## 1.2 External links

- To link the page of another website, again the **href** attribute of opening tag of **<a>** is used
- the value of the **href** attribute is the **full web address** for the page you want to link to rather than just the **filename**
- **<a href="https://www.google.com.pk"> Click here </a>**



# 1.2 External links ...

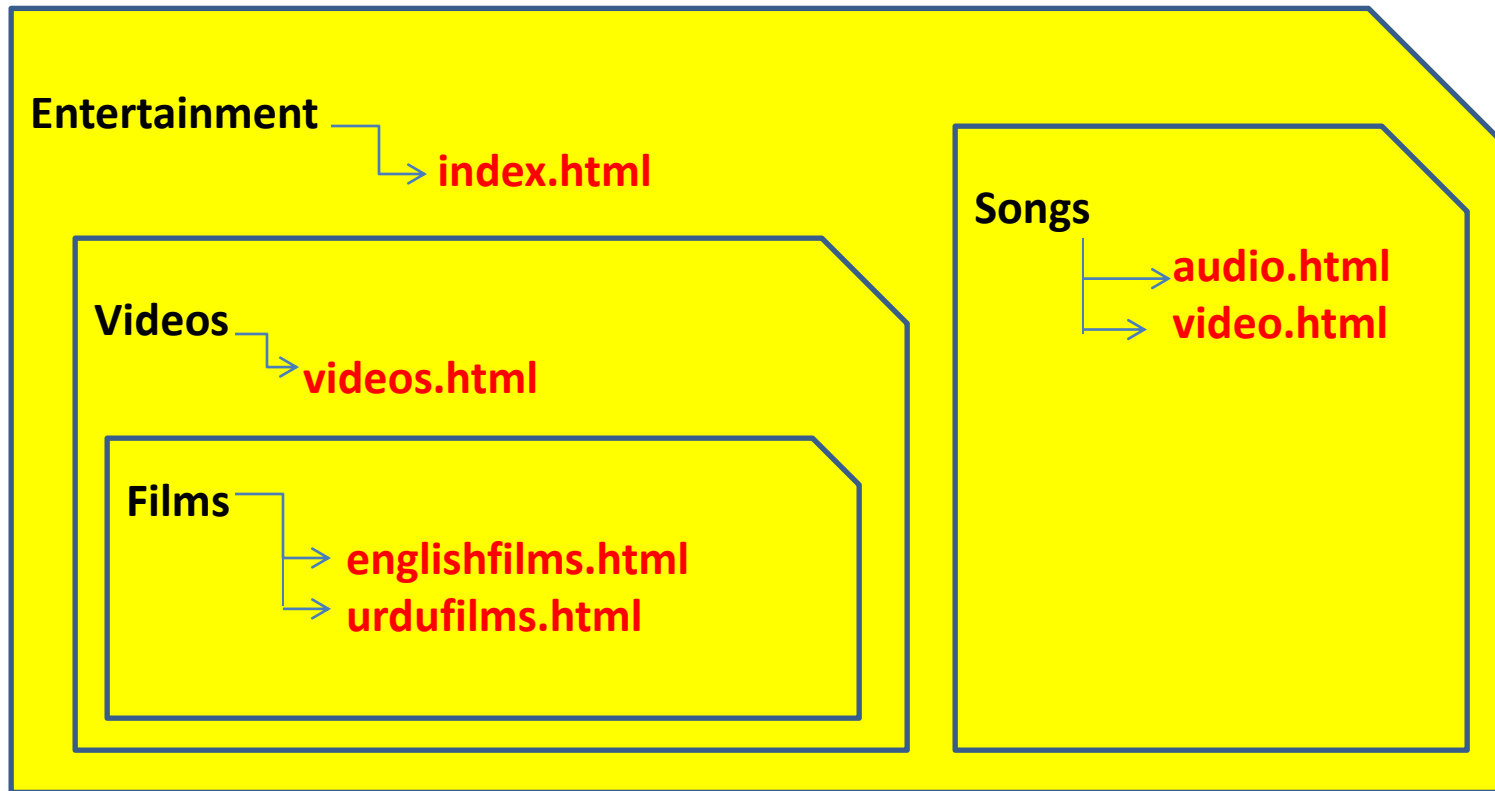
A screenshot of a Notepad window titled 'ext - Notepad'. The window has a menu bar with 'File', 'Edit', 'Format', 'View', and 'Help'. The text inside the window is HTML code. The first part is the head section with a title 'External Linking'. The body section contains the text 'This is the home page. To go to the google page, please' followed by an anchor tag. The anchor tag's href attribute is highlighted in blue and contains the URL 'https://www.google.com.pk'. The text 'click here' follows the anchor tag. The code ends with closing tags for the body and html.

```
<html>
<head>
<title> External Linking </title>
</head>
<body>
This is the home page. To go to the google
page, please
<a href="https://www.google.com.pk"> click here</a>
</body>
</html>
```

## 2. Directory Structures

- A **directory** is simply another name for a folder on a web site
- The **root directory** (or root folder) is the main directory that holds the whole of your web site
- A **subdirectory** is a directory that is within another directory
- A **parent directory** is a directory that contains another directory

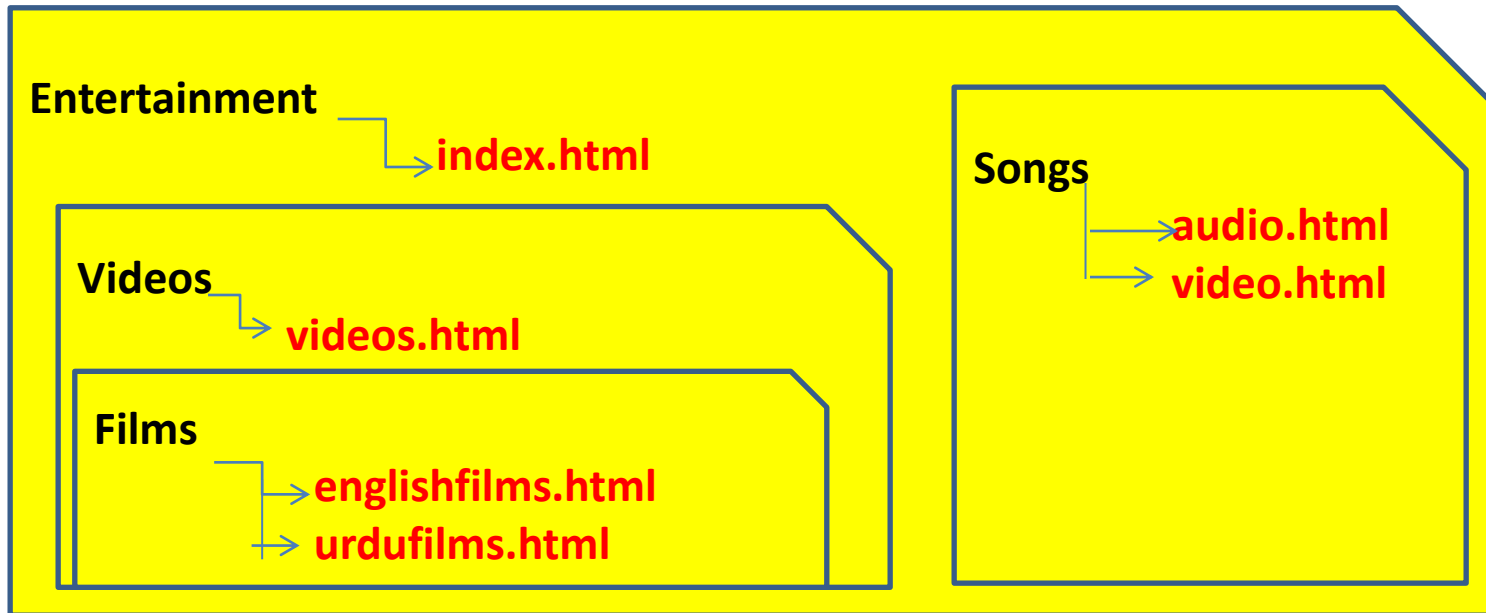
## 2. Directory Structures...



## 2.1 Referencing a web page

- **Same Directory:** When you want to link to, or include, a resource from the same directory, you can just use the **name of that file**
- **Subdirectory:**
  - **sub-directory/.../file-name**
- **Parent directory:**
  - **../file-name**

## 2.1 Referencing a web page...



- `<a href="englishfilms.html">....</a>`
- `<a href="Videos/Films/englishfilms.html">....</a>`
- `<a href="../..Songs/audio.html">....</a>`

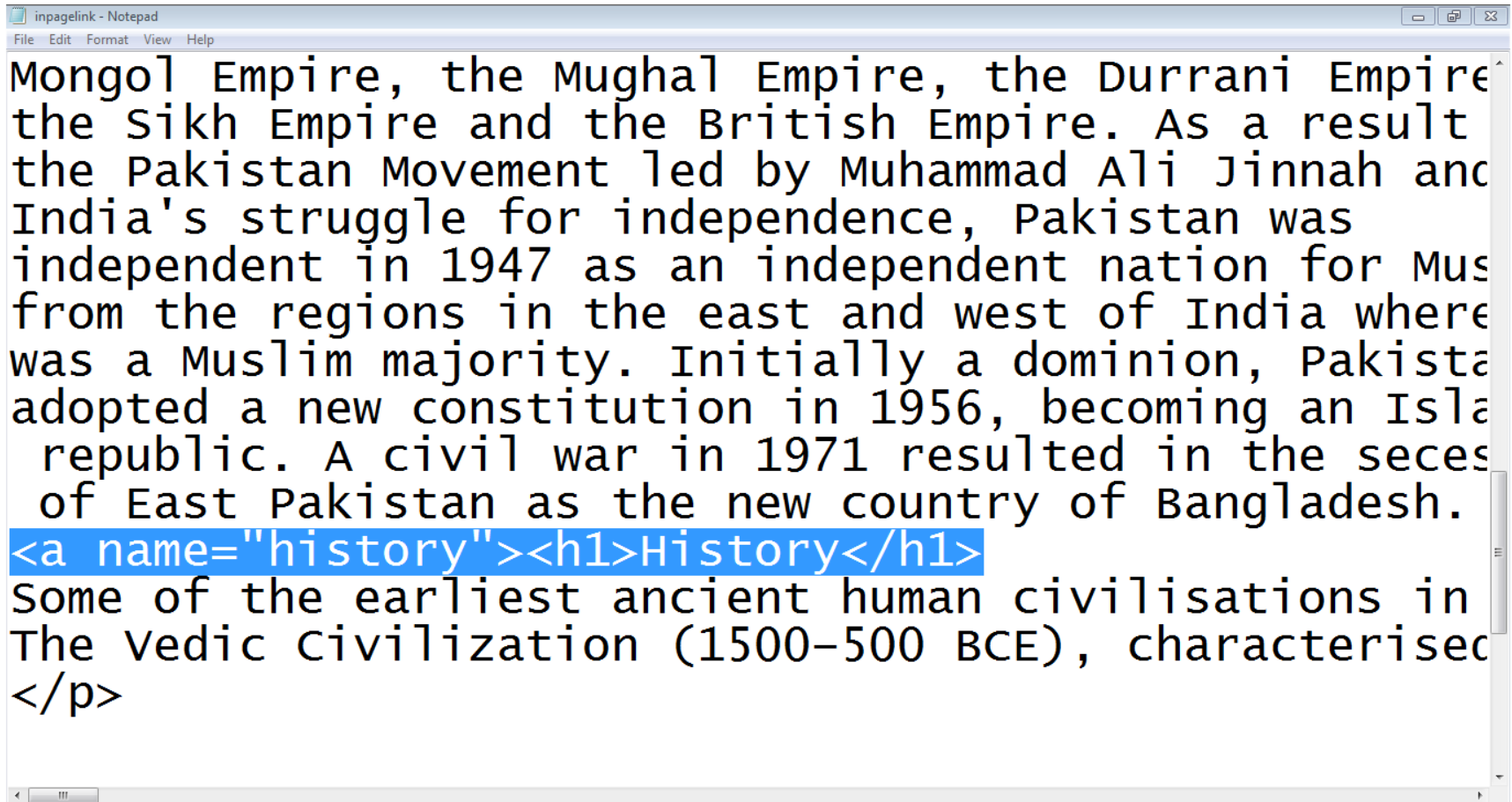
# 3. Internal document references

- Also be called **page jump**, u can make this jump with two simple steps
- **Step 1**
- Assign a name to the link you want to reference
- **E.g.** `<A NAME="your bookmark name"></A>`

# 3. Internal document references

- **Step 2**
- add a link in anyplace in your page to let the user move to your bookmark point from it
- **E.g.** `<A HREF="# your bookmark name ">` Add the text to be displayed and clicked by the user`</A>`

### 3. Internal document references

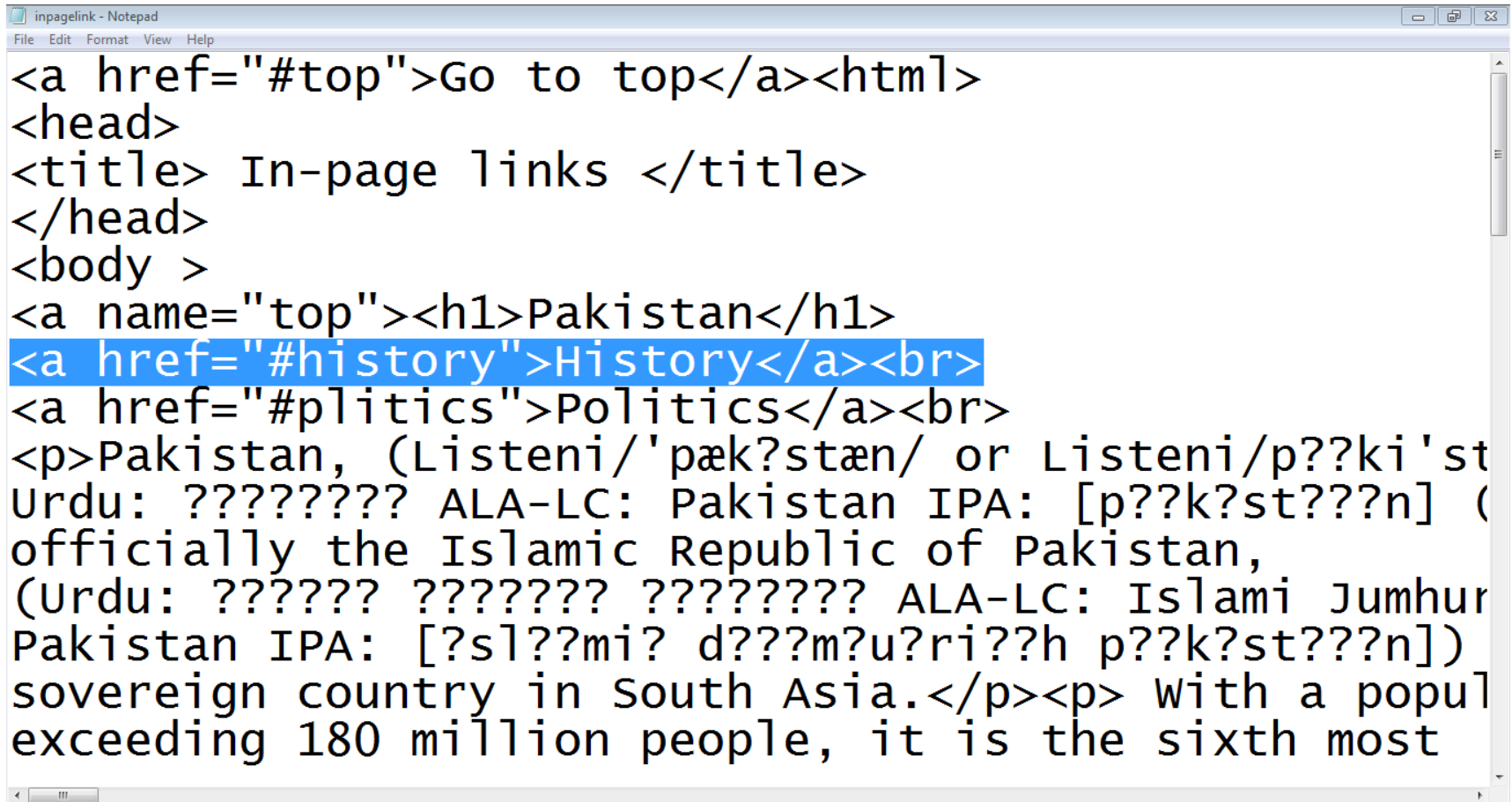


```
inpagelink - Notepad
File Edit Format View Help

Mongol Empire, the Mughal Empire, the Durrani Empire,
the Sikh Empire and the British Empire. As a result
the Pakistan Movement led by Muhammad Ali Jinnah and
India's struggle for independence, Pakistan was
independent in 1947 as an independent nation for Muslims
from the regions in the east and west of India where
was a Muslim majority. Initially a dominion, Pakistan
adopted a new constitution in 1956, becoming an Islamic
republic. A civil war in 1971 resulted in the secession
of East Pakistan as the new country of Bangladesh.
<a name="history"><h1>History</h1>
Some of the earliest ancient human civilisations in
The Vedic Civilization (1500–500 BCE), characterised
</p>
```



# 3. Internal document references



```
<a href="#top">Go to top</a><html>
<head>
<title> In-page links </title>
</head>
<body >
<a name="top"><h1>Pakistan</h1>
<a href="#history">History</a><br>
<a href="#politics">Politics</a><br>
<p>Pakistan, (Listeni/'pæk?stæn/ or Listeni/p??ki'st
Urdu: ?????????? ALA-LC: Pakistan IPA: [p??k?st???n] (
officially the Islamic Republic of Pakistan,
(Urdu: ???????? ?????????? ?????????? ALA-LC: Islami Jumhur
Pakistan IPA: [ʔslʔmiʔ d????m?u?ri??h p??k?st???n])
sovereign country in South Asia.</p><p> with a popul
exceeding 180 million people, it is the sixth most
```

## 4. Referencing another page at specific location

Referring other pages also involves 2 steps

**Step 1:** Assign a name to the link

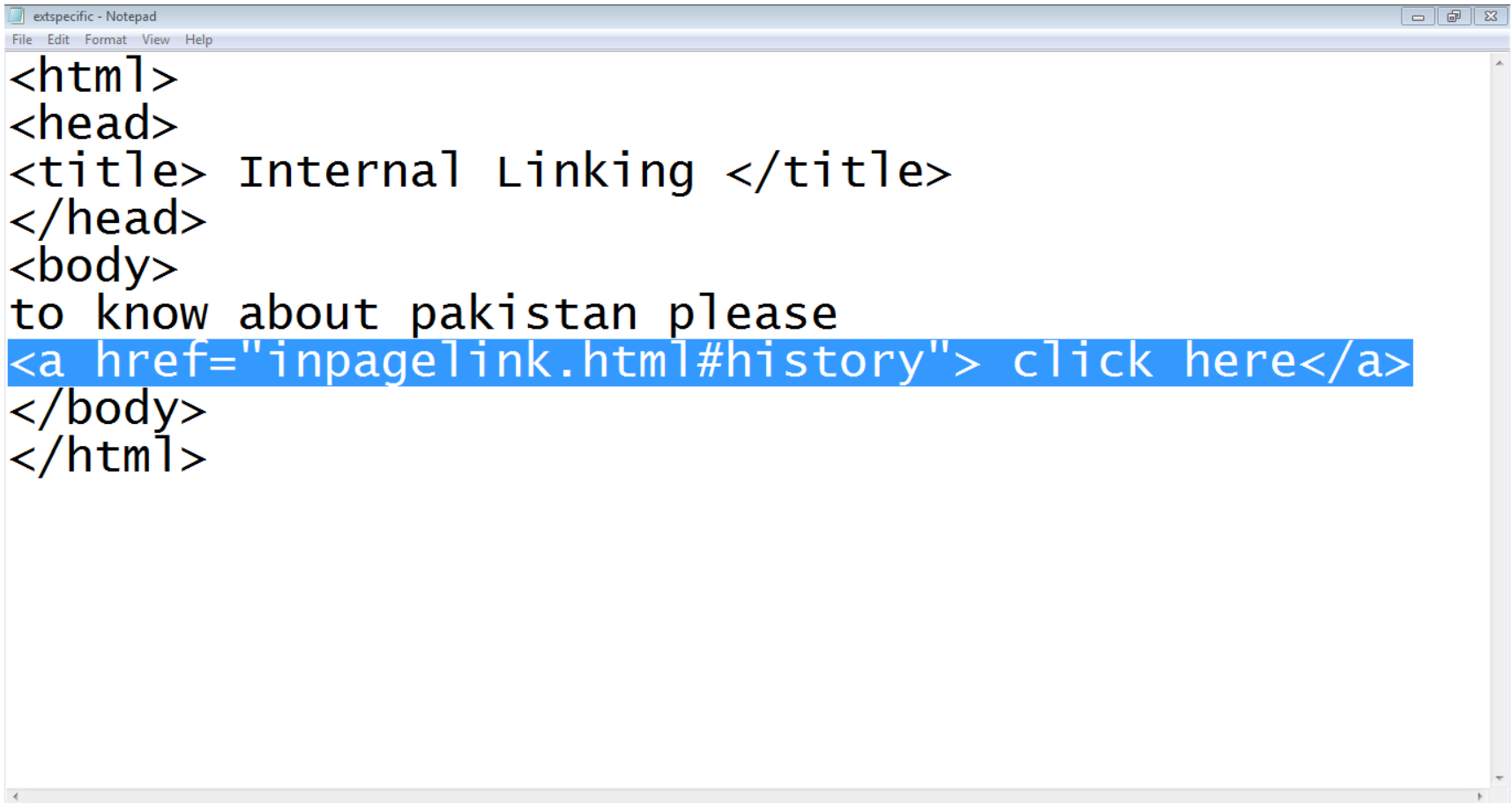
e.g.

```
<a name="location-name">
```

**Step 2:** Link to that page

```
<a href="pagename#location-name">....</a>
```

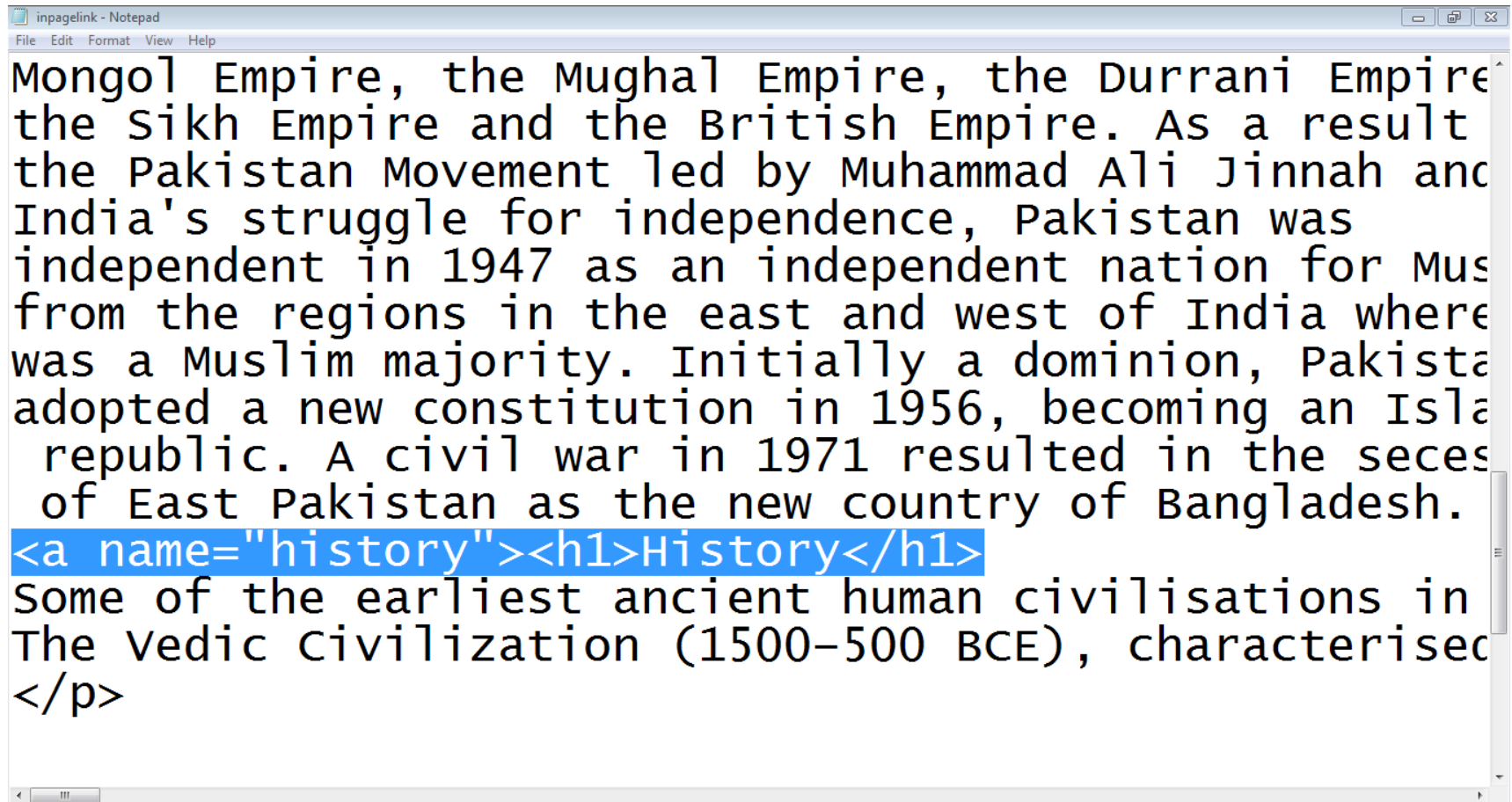
## 4. Referencing another page at specific location

A screenshot of a Notepad window titled 'extspecific - Notepad'. The window contains HTML code for an internal link. The code is as follows:

```
<html>
<head>
<title> Internal Linking </title>
</head>
<body>
to know about pakistan please
<a href="inpagelink.html#history"> click here</a>
</body>
</html>
```

The line containing the anchor tag is highlighted in blue. The window has a standard menu bar with 'File', 'Edit', 'Format', 'View', and 'Help'. The status bar at the bottom shows a horizontal scrollbar.

## 4. Referencing another page at specific location



```
inpagelink - Notepad
File Edit Format View Help

Mongol Empire, the Mughal Empire, the Durrani Empire,
the Sikh Empire and the British Empire. As a result
the Pakistan Movement led by Muhammad Ali Jinnah and
India's struggle for independence, Pakistan was
independent in 1947 as an independent nation for Muslims
from the regions in the east and west of India where
was a Muslim majority. Initially a dominion, Pakistan
adopted a new constitution in 1956, becoming an Islamic
republic. A civil war in 1971 resulted in the secession
of East Pakistan as the new country of Bangladesh.
<a name="history"><h1>History</h1>
Some of the earliest ancient human civilisations in
The Vedic Civilization (1500–500 BCE), characterised
</p>
```

## 5. More attribute for <a>

- **target:**
- The **target** attribute specifies where to open the linked document.
- This example will open the linked document in a new browser window or in a new tab:
  - `<a href="abc.html" target="_blank">....</a>`

# 5. More attribute for <a>

- **target:**
- Other values of target are:

`_blank`      Opens the linked document in a new window or tab

`_self`      Opens the linked document in the same frame as it was clicked (this is default)

`_parent`      Opens the linked document in the parent frame

`_top`      Opens the linked document in the full body of the window

*frame  
ame*      Opens the linked document in a named frame

## 5. More attribute for <a>

- **accesskey:**

To access the link

– `<a href="abc.html" accesskey="a">.....</a>`

- **tabindex:**

Which index shall be selected

– `<a href="abc.html" tabindex="1">....</a>`

- **title:**

Show title of link

– `<a href="abc.html" title="it,s a link">....</a>`

# 5. More attribute for <a>...

```
attributes - Notepad
File Edit Format View Help
<html>
<head>
<title>Link Attributes</title>
</head>
<body bgcolor="lightblue">
It is the first link
<a href="first.html" tabindex="2" target="_self"
title="this is the first link" accesskey="a">
first link </a><br>
It is the second link
<a href="first.html" tabindex="1" target="_blank"
title="this is the second link">second link</a>
</body>
</html>
```



# Other type of links

- **Download Link**
- The download attribute specifies that the target will be downloaded when a user clicks on the hyperlink.
- This attribute is only used if the href attribute is set.
- There are no restrictions on allowed values

# Other type of links

- **Download Link**
- This link is not supported in Internet explorer and Safari browser
- **E.g.**
- `<a href="/images/myw3schoolsimage.jpg" download>`
- **It can also be written as**
- `<a download="filename">`

# Other type of links

- **Mailto:**
- Is used to send email
- E.g.
- `<a href="mailto:webmaster@example.com">Jon Doe</a>`

# Other type of links

- **Mailto Example:**

```
<!DOCTYPE html>
<html>
<body>

<p>
This is mailto link:
<a href="mailto:someone@example.com" target="_top">Send mail!</a>
</p>

</body>
</html>
```

---

This is mailto link: [Send mail!](mailto:someone@example.com)

# Summary

- Use the HTML **<a>** element to define a link
- Use the HTML **href** attribute to define the link address
- Use the HTML **target** attribute to define where to open the linked document
- Use the HTML **<img>** element (inside **<a>**) to use an image as a link

# Summary

- **Internal links**
- **External links**
- **Directory Structure**
- **Internal document reference**
- **Some attributes of <a>**
- **Other types of links**

**THANK YOU**