Problem 2.1:

1) A web page is a document that is offered by a web server on the World Wide Web and can contain data and hyperlinks. Web pages are mostly HTML files that can be displayed by web browsers. In contrast, web sites are collections of web pages that share a purpose and are usually under control of the same entity. Web sites generally share a common domain name.

A hyperlink is a reference to data that can be followed directly by a user by clicking or hovering. Hypertext is text with hyperlinks that point to text fragments within the collection of documents.

2) No, you cannot. The only URIs (Uniform Resource Identifiers) that can be used to identify the location of a web resource are the URLs (Uniform Resource Locators). URNs and URLs are structurally the same, but URNs can fail to locate a web resource for two reasons: Either, the scheme of the URN does not provide a method to locate the resource, or the resource that is requested cannot be found, i.e. there is a dead end. An example for the former is the ISBN scheme. URNs like the ISBN can be turned into URLs by catalog services.

3) Web browsers are software applications that are used for retrieving, presenting and traversing information resources on the World Wide Web. HTTP is the Hypertext Transfer Protocol, which is used to access web resources (with the help of addressing by URLs) by an HTTP request. The HTTP protocol is used for the communication of a web server with its user agent (the web browser). Usually, the user agent sends a GET request to the webserver and specifies the resource it wants to access, the web server provides the resource to the web browser, which displays the content such that it is readable for humans. In short, HTTP allows the communication between web server and the user agent.