
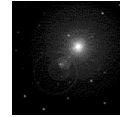


CS 4/55231 Internet Engineering	Kent State University Dept. of Computer Science
	LECT-END

<h1>Review</h1>
2

Review: MIME, URL, HTTP

- What is URI? Name five URI schemes.
- Explain the main components of HTTP URI scheme.
- What is relative URL?
- Explain what part of HTTP URI is used for transferring data between browser and CGI script?
- Explain what is MIME “multipart”?
- What is transfer encoding?
- Give a short overview of HTTP 1.0 s design objectives.
- Why HTTP is called stateless?
- Explain the functions of the 14 HTTP 1.1 methods.
- Explain the difference between the POST and GET
- Explain the HTTP 1.1 the entity headers.
- Explain the messaging between a server and browser when a passwords protected document is requested.

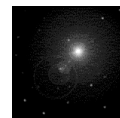


**INTERNET
ENGINEERING**

LECT-E, S-3
IN2004S, javed@kent.edu
Javed I. Khan@2004

Review: Persistent Connection

- What is connection persistency in HTTP 1.1?
- How it benefits a HTTP application?
- How a HTTP client determines if a server is HTTP 1.0 or HTTP 1.1?
- What is a HTTP proxy? Explain some use of proxy.
- What is a HTTP tunnel? Explain some use of tunnel?
- Explain the messaging between a server and browser when a passwords protected document is requested and a proxy is involved.
- Explain in the above how connection persistency helps.
- What is idempotent method? Classify all HTTP 1.1 methods either as idempotent or non-idempotent.
- An HTTP client faces two times connection close. Explain what the HTTP client would do when it it following the binary-back-off rule.

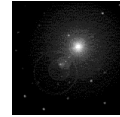


**INTERNET
ENGINEERING**

LECT-E, S-4
IN2004S, javed@kent.edu
Javed I. Khan@2004

Review: Caching

- What is the advantage of caching?
- What caching support has been introduced in HTTP 1.1? List the special headers which has been introduced in HTTP 1.1 to support efficient caching.
- Explain the advantage of data based vs. age based caching?
- Explain how a chain of cache performs re-compute the age of a response?
- Explain the difference between strong and weak validators. Is time a strong validator?
- List and explain the cache control directives.
- What parameters can you use in your cache replacement policy? Which one performs best in the example study shown in the class?
- What factors determines the cache performance?
- Can you explain a client based probing scheme to determine the performance of a caching system?
- What are the advantage of having a cache at the server end?
- What is the potential pitfalls if caching becomes multi-level?

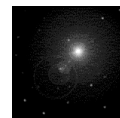


**INTERNET
ENGINEERING**

LECT-E, S-5
IN2004S, javed@kent.edu
Javed I. Khan@2004

Review- Dynamic Document

- What is dynamic document? Why it is important to serve dynamic document?
- What is the purpose of CGI standard?
- How the server passes on parameters to a script?
- Who is responsible for entity headers while serving script generated response?
- What are the performance impact of CGI on the hosting server?
- What are the performance impact of CGI on the browsers?
- Explain in 5 steps the responsibility of a HTTP browser in supporting interactive forms. What is the responsibility of a HTTP server here?
- What are the relative advantage and disadvantage of using POST vs. GET methods in managing forms?
- How an HTTP server can identify a session while using multi-step forms?

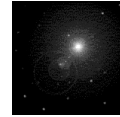


**INTERNET
ENGINEERING**

LECT-E, S-6
IN2004S, javed@kent.edu
Javed I. Khan@2004

Review: JVM

- What are the three design goals that lead to Java?
- What is the difference between a Java application and a Java Applet?
- How Java ensures platform independence?
- Explain what are the four main stages of JVM security check? Which step is most expensive?
- Why Java Applets are slow in running compared to native code?
- What is stack oriented operation?
- For the “Example of Stack Operation” a set of byte code is given in the class-notes. Can you draw a stack and show step-by-step how the content changes as the byte codes execute and change the stack?
- What controls are needed by the Browser to control the Applets?

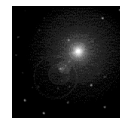


**INTERNET
ENGINEERING**

LECT-E, S-7
IN2004S, javed@kent.edu
Javed I. Khan@2004

Review: Plug-Ins

- What is the main difference between a helper application and a plug-in?
- Given examples from day-to-day systems you encounter frequently during today's web-browsing of the following types: (a) a helper, (b) a windowed plug-in, (c) a window-less plug-in, (d) a plug-in which consumes multiple stream (e) a plug-in which produces stream (f) a plug-in which can also directly communicate with a non HTTP server- without hosting client.
- How two way interactivity is ensured between a plug-in and a hosting client?
- What are the five main classes of interactions that needs to be coordinated between a plug-in and a hosting client?
- In which situations you would use helper or plug-in as opposed to Java Applet?
- How plug-in interacts with the hosting client (Browser)?
- Explain the three modes by which a plug-in can receive a stream from a hosting client? Can you give example of situations when each of these modes are useful?
- Explain the use of GetURLNotify function.
- What is the difference between a windowed and windowless plug-in?
- Compare the advantage and disadvantage of plug-in vs. applets.



**INTERNET
ENGINEERING**

LECT-E, S-8
IN2004S, javed@kent.edu
Javed I. Khan@2004