Application Protocols

Basic Ping request

|  |  |  |
| --- | --- | --- |
|  |  | Server(starts) |
| Client(starts) sends TCP connection request | 🡪 |  |
|  | 🡨 | Server(accepts) TCP connection reply |
| Client sends URL | 🡪 | Server processes ping for URL |
|  | 🡨 | Server sends results to client |
| Client sends “-10” | 🡪 | Server begins shut down |
| Client receive shut down request and closes connection | 🡨 | Server sends shutdown request for all clients  Then Server shuts down |

Unsuccessful Ping request

|  |  |  |
| --- | --- | --- |
|  |  | Server(starts) |
| Client(starts) sends TCP connection request | 🡪 |  |
|  | 🡨 | Server(accepts) TCP connection reply |
| Client sends URL | 🡪 | Server processes ping for URL |
|  | 🡨 | Server sends error message to client |
| Client sends “-10” | 🡪 | Server begins shut down |
| Client receive shut down request and closes connection | 🡨 | Server sends shutdown request for all clients  Then Server shuts down |

Notes:

* This program can generate a number of strings in order to handle multiple clients
* Individual clients may end their session by typing “0” into console
* In order to close server it needs to be done through a client