Proof of starting:-

Server terminal — Lab midsem — server 4444 — 80×24
```
(base) kunalkariwala@kunals-MacBook-Air Lab midsem % ./server 4444
Server: Enter your campus ID
```

Client terminal — Lab midsem — client 4444 127.0.0.1 — 85×24
```
(base) kunalkariwala@kunals-MacBook-Air Lab midsem % ./client 4444 127.0.0.1
Client : server sent this : Enter your campus ID
Client : Enter your campus ID
```

Proof that entered campus id gives the correct value

Server terminal — Lab midsem — server 4444 — 80×24
```
(base) kunalkariwala@kunals-MacBook-Air Lab midsem % ./server 4444
Server: Enter your campus ID
Server: client sent this : 31120190134 is the ID
Server: The campus ID entered in int form is :- 31120190134
The value of y is :- 105
The value of calc is :- -210
Server : Enter your name:
```

Client terminal — Lab midsem — client 4444 127.0.0.1 — 85×24
```
(base) kunalkariwala@kunals-MacBook-Air Lab midsem % ./client 4444 127.0.0.1
Client : server sent this : Enter your campus ID
Client : Enter your campus ID
31120190134
```

Proof that after this, server does not accept names if even one character is uppercase

Server terminal — Lab midsem — server 4444 — 80×24
```
(base) kunalkariwala@kunals-MacBook-Air Lab midsem % ./server 4444
Server: Enter your campus ID
Server: client sent this : 31120190134 is the ID
Server: The campus ID entered in int form is :- 31120190134
The value of y is :- 105
The value of calc is :- -210
Server : Enter your name:
Kunal
Server : The name entered is : Kunal
Server : ERROR The name entered is not all lowercaps : Kunal
Server : Enter your name:
kUnal
Server : The name entered is : kUnal
Server : ERROR The name entered is not all lowercaps : kUnal
Server : Enter your name:
```

Client terminal — Lab midsem — client 4444 127.0.0.1 — 85×24
```
(base) kunalkariwala@kunals-MacBook-Air Lab midsem % ./client 4444 127.0.0.1
Client : server sent this : Enter your campus ID
Client : Enter your campus ID
31120190134
```

Proof that the client prints the calculated value, the server prints the value of y, finally the client prints the value of everything

Server terminal
```
(base) kunalkariwala@kunals-MacBook-Air Lab midsem % ./server 4445
Server: Enter your campus ID
Server: client sent this : 31120190134 is the ID
Server: The campus ID entered in int form is :- 31120190134
The value of y is :- 105
The value of calc is :- -210
String value of calc is : -210
Server : Enter your name:
kunal
Server : The name entered is : kunal
String value of y is : 105
```

Client terminal
```
(base) kunalkariwala@kunals-MacBook-Air Lab midsem % ./client 4445 127.0.0.1
Client : server sent this : Enter your campus ID
Client : Enter your campus ID
31120190134
Client : the value of calcval is: -210
Client : the value of yval is: 105
Client : Name : kunal, CAMPUS ID : 31120190134, VALUE OF Y : 105
(base) kunalkariwala@kunals-MacBook-Air Lab midsem %
```

Question 2:

IP Address = 10.0.2.15
Number of requests = 17(Displayed in bottom right corner of status bar)

	http.request								
Time	Protocol	Source Add	Source Port	Destination Add	Destination Port	HTTP Host	HTTPS server		
16:36:56.04606…	HTTP	10.0.2.15	47744	34.107.221.82	80	detectp…			
16:36:56.21472…	HTTP	10.0.2.15	47746	34.107.221.82	80	detectp…			
16:36:56.42008…	OCSP	10.0.2.15	34312	104.115.39.49	80	r3.o.le…			
16:36:56.46499…	OCSP	10.0.2.15	34312	104.115.39.49	80	r3.o.le…			
16:36:57.62439…	OCSP	10.0.2.15	44228	117.18.237.29	80	ocsp.di…			
16:36:57.90494…	OCSP	10.0.2.15	34312	104.115.39.49	80	r3.o.le…			
16:36:58.53805…	OCSP	10.0.2.15	34312	104.115.39.49	80	r3.o.le…			
16:36:59.99909…	OCSP	10.0.2.15	44228	117.18.237.29	80	ocsp.di…			
16:37:01.40204…	HTTP	10.0.2.15	46672	3.33.152.147	80	www.sou…			
16:37:02.41124…	HTTP	10.0.2.15	46672	3.33.152.147	80	www.sou…			
16:37:03.33575…	OCSP	10.0.2.15	50510	172.217.174.67	80	ocsp.pk…			
16:37:05.19465…	OCSP	10.0.2.15	44228	117.18.237.29	80	ocsp.di…			
16:37:07.02311…	OCSP	10.0.2.15	50510	172.217.174.67	80	ocsp.pk…			
16:37:15.64520…	OCSP	10.0.2.15	50510	172.217.174.67	80	ocsp.pk…			
16:37:15.67008…	OCSP	10.0.2.15	50512	172.217.174.67	80	ocsp.pk…			
16:37:32.95359…	OCSP	10.0.2.15	50514	172.217.174.67	80	ocsp.pk…			
16:37:34.77925…	HTTP	10.0.2.15	40684	98.137.11.164	80	yahoo.c…			

> Frame 26: 355 bytes on wire (2840 bits), 355 bytes captured (2840 bits) on interface any, id 0
> Linux cooked capture v1
> Internet Protocol Version 4, Src: 10.0.2.15, Dst: 34.107.221.82
> Transmission Control Protocol, Src Port: 47744, Dst Port: 80, Seq: 1, Ack: 1, Len: 299
> Hypertext Transfer Protocol

0000   00 04 00 01 00 06 08 00   27 1e f1 85 00 00 08 00   .... '.......

Request: Boolean   Packets: 2375 · Displayed: 17 (0.7%)   Profile: Default

2) Number of responses = 16

	http.response							
Time	Protocol	Source Add	Source Port	Destination Add	Destination Port	HTTP Host	HTTPS server	
16:36:56.09908…	HTTP	34.107.221.82	80	10.0.2.15	47744		nginx	
16:36:56.25033…	HTTP	34.107.221.82	80	10.0.2.15	47746		nginx	
16:36:56.45805…	OCSP	104.115.39.49	80	10.0.2.15	34312		nginx	
16:36:56.49021…	OCSP	104.115.39.49	80	10.0.2.15	34312		nginx	
16:36:57.66844…	OCSP	117.18.237.29	80	10.0.2.15	44228		ECS (nag/99A7)	
16:36:57.94052…	OCSP	104.115.39.49	80	10.0.2.15	34312		nginx	
16:36:58.58265…	OCSP	104.115.39.49	80	10.0.2.15	34312		nginx	
16:37:00.02426…	OCSP	117.18.237.29	80	10.0.2.15	44228		ECS (nag/99A7)	
16:37:02.01457…	HTTP	3.33.152.147	80	10.0.2.15	46672		ip-10-123-236.ec2.internal	
16:37:03.43855…	OCSP	172.217.174.67	80	10.0.2.15	50510		ocsp_responder	
16:37:05.22436…	OCSP	117.18.237.29	80	10.0.2.15	44228		ECS (nag/99A7)	
16:37:07.11077…	OCSP	172.217.174.67	80	10.0.2.15	50510		ocsp_responder	
16:37:15.73225…	OCSP	172.217.174.67	80	10.0.2.15	50510		ocsp_responder	
16:37:15.77472…	OCSP	172.217.174.67	80	10.0.2.15	50512		ocsp_responder	
16:37:33.06029…	OCSP	172.217.174.67	80	10.0.2.15	50514		ocsp_responder	
16:37:35.34880…	HTTP	98.137.11.164	80	10.0.2.15	40684		ATS	

> Frame 28: 437 bytes on wire (3496 bits), 437 bytes captured (3496 bits) on interface any, id 0
> Linux cooked capture v1
> Internet Protocol Version 4, Src: 34.107.221.82, Dst: 10.0.2.15
> Transmission Control Protocol, Src Port: 80, Dst Port: 47744, Seq: 1, Ack: 300, Len: 381
> Hypertext Transfer Protocol
> Line-based text data: text/html (1 lines)

0000   00 00 00 01 00 06 52 54   00 12 35 02 00 00 08 00   ······RT ··5·····

Response: Boolean   Packets: 2375 · Displayed: 16 (0.7%)   Profile: Default
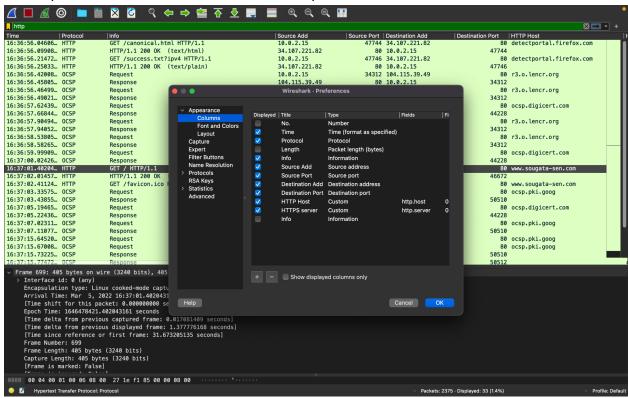
3) 405 Bytes

4) Column header-> column preferences

New column-> renames as source port

Number->type(Source port unresolved)

Similar procedure to be followed for destination port

5) 0.003406364seconds

6) destination port is : 36130 corresponding hexcode is 8d22