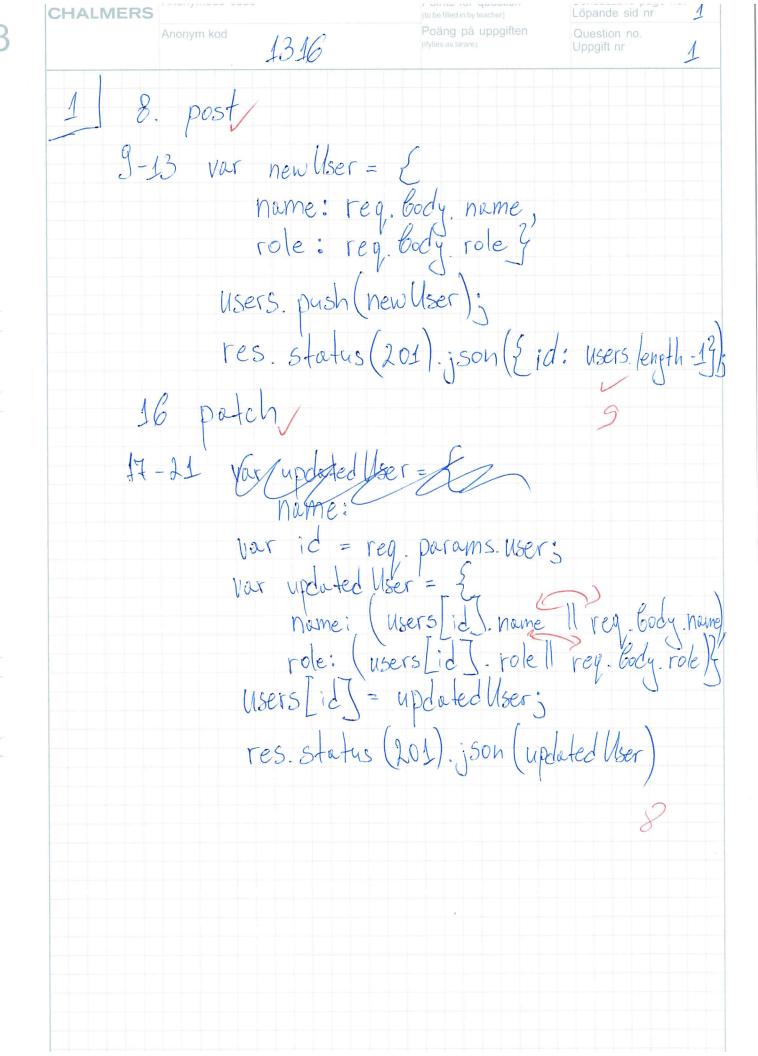
CHALMERS EXAMINATION/TENTAMEN

Course code/kurskod	Course name/kursnamn			
DIT341	We6	developme	nt	
Anonymous code Anonym kod		Examination date Tentamensdatum	Number of pages Antal blad	Grade Betyg
1316		21/10/25	10	06

^{*} I confirm that I've no mobile or other similar electronic equipment available during the examination. Jag intygar att jag inte har mobiltelefon eller annan liknande elektronisk utrustning tillgänglig under eximinationen.

Solved task Behandlade uppgifte No/nr	Points per task Poäng på uppgiften	Observe: Areas with bold contour are to completed by the teacher. Anmärkning: Rutor inom bred kontur ifylles av lärare.
1 🛧	17	
2 1	79	
3	27	
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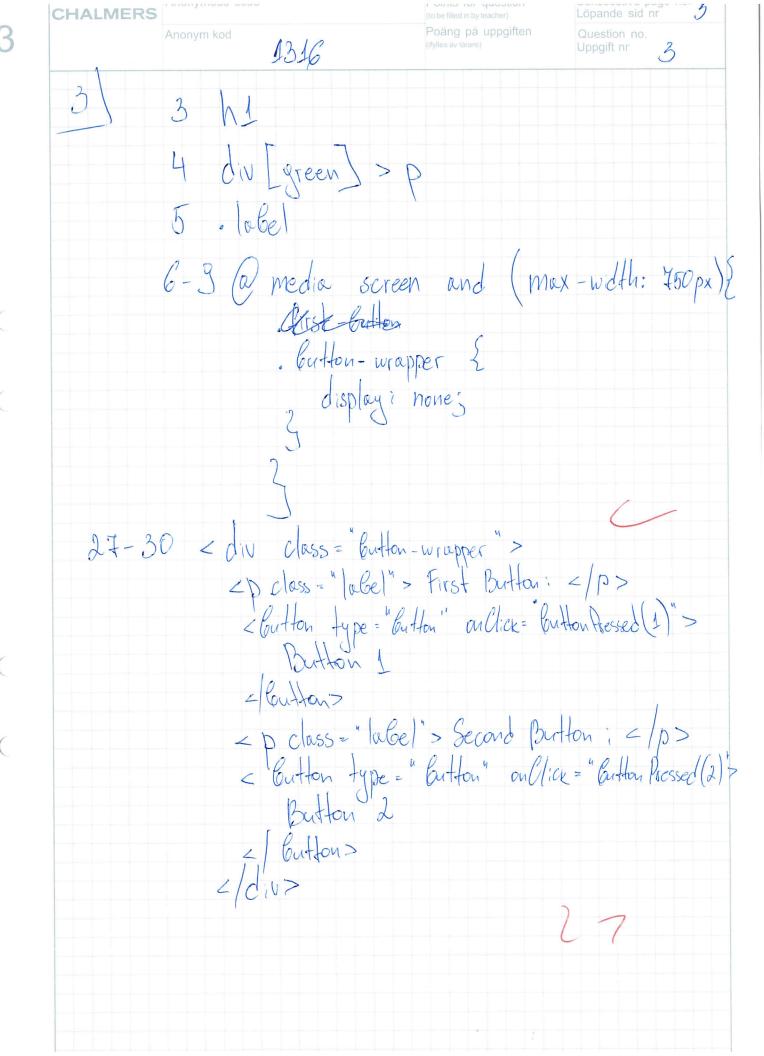


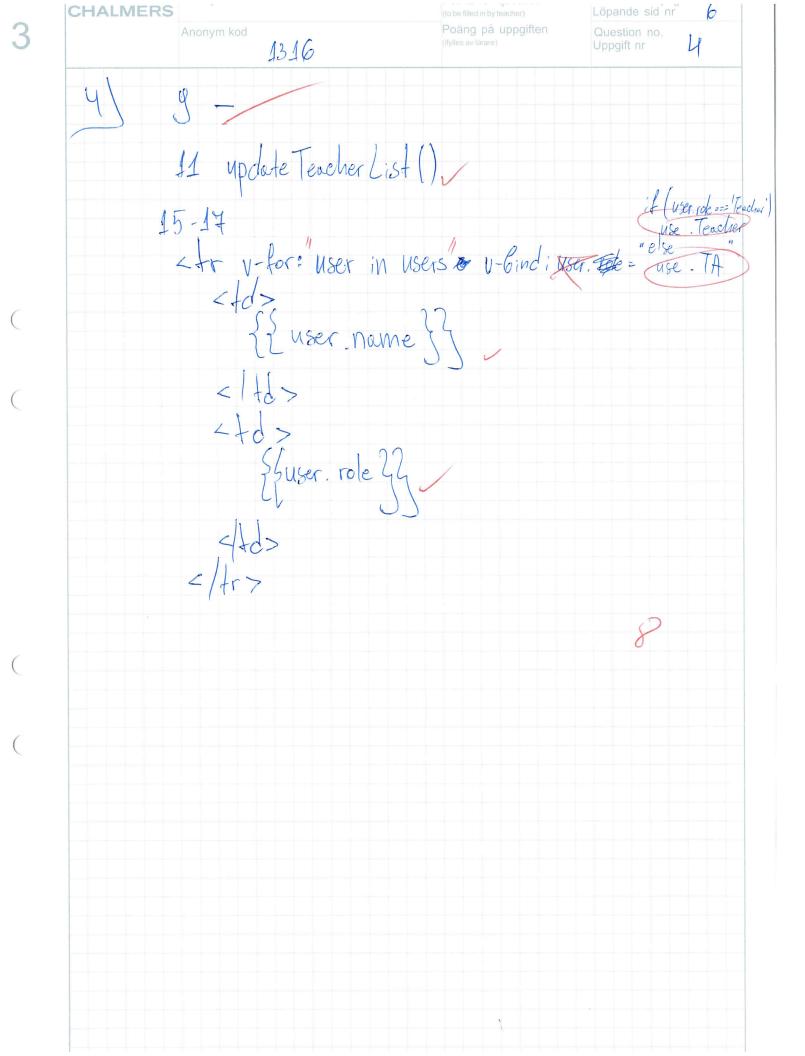
1316 I.1) POST /canvas/courses I would expect this API method to create a new course in Canvas. By using this method I should be able to pass a JSON in the request body the structure of the JSON is predefined and create a New Course. POST (canvas / courses / : course / assingments I would expect this API method to create a new assignment within a specific course (e.g., define d'ôg a course id). Dé using this method I should be able to pass a JSDN in the request body and create a new assimpment for & a specific course. Difference: The second method uses the relationship between a course and assingments. This gives us the opportunity to link un ossignment to a course. Prerequisite = we should know the course identifier (for instance, id) before hand. 2.2) GET /canvas/users/1907 HTT host; www. canvas. com, Set - cookie: my Cookie

1316 (2.3) Status code 401 UNAUTHORISED This would mean that the user trying to invoke the APT call is unauthorized. It may occur when the user has not logged in to the system. Status code 403 FORBIDDEN This would mean that the user lacks a special anthorization (e.g. role) and, therefore the call fails. The user is denied access to whatever he was trying to change. (2.4) I do not consider this as a good REST ful design as the method updates (patches) a specific user with a GET Request which is considered a sale one. But in reality we patch a user and this is on unsale (or idempotent, depending on implementation) Instead, the method can be implemented like this: PATCH Conves users linser The Bockend should be ready to change any field that is sent with the request body.

Löpande sid nr

Anonym kod 1316 2.5 Sale methods are those which do not make any changes to the DB when colled. Unsafe ones are those which make changes to the DB each time they are called I dempotent methods can be described as me tho is which of first call make a change but if tried to all the same method several times, a modification does not occur. PUT is a such HTTP method. First, the whole entity is changed but it invoked with the same Gody, a change does not happen. GFT /convos/users -> safe GET (convos users | user -> safe GET (convos) users / inser? update = name X Set = Leitner > The Granses assumes it is sufe but in reality we make a Change which makes it unsafe convos courses -> unsafe DOST | Canvas | courses / i course | assingments -> unsufe PUT canvos courses | : course -> idempotent Example





CHALMERS 1346 1. Client - Server Separate client and server as their concerns 2. Stateless The client's request shall be self-containing. The server shall not log client's state. 3. (ocheoble A RESTRUL design should enable coching to Myraux ensure Getter performance. 4. Uniform Interface Changes to implementation should not affect the interface. Interface should be independent.

1316 (cookies are mostly used to overcome the statelessness of the server. Usually the servers do not care about client's state but cookies are particularly useful for persistent authorization, meaning that via cookies the server would " remember" that the dient has logged in. This could be particularly useful for our case, remember that the user his logged in so they to not need to re-lopin on refresh. To ensure safety, the server could set an expiration date on a cooke (e.g. the user should confirm credentials after the cookie expires and it its successful, a new expiration time is set Example: The user sends a reguest GET /canves/users/21 HTTP/1.1 host i www. canves. com Cookie null The server verifies the user, sets a cooxie and thus sends it to the user along with the requested duta HTTP 11.1 200 OK set-cooxie: Bessir cooxie Hush 1. 2034 connection; keep-alive content-type: 550 N L response Gody]

CHALMERS 1316 Used for communication between two computers. Unce connection is established data can be sent both ways. Ros is ensured, loss puckets are re-sent or at least an attempt is made. Use use: 1-on-1 Whats App call connection. Data is constantly exchanged between the participants. Used for communication between multiple computers where only one of them send data. The sender does not Know who listens Use case: Streaming > Twitch streams, streamer's feed is sent to whoever's listening/watching