Questions on the syllabus[1]

1. How can we create/update/access resources in REST? Which are the pros and cons of REST?
2. What is OpenAPI?

3. Why microservices?
4. Which are the main characteristics, and the main pros and cons, of microservice-based architectures?
5. Which refactoring can be applied to resolve architectural smell *X*? How can we automate the generation of a model of a microservice-based architecture?
6. What is Flask?
7. What is a container/image/volume in Docker? Wich are the differences between a virtual machine and a container?
8. What is the effect of *docker build/run/commit*? What is Docker Compose?

9. What is development/release/user testing? What is TDD? What is partition testing? What are "software inspections"?
10. What is Locust?

11. What is a user story? Which are the six main attributes for a good user story?

12. What is a parallel/exclusive/inclusive gateway in BPMN?
13. What is a workflow net? What is a sound workflow net? What is a live/bounded Petri net?
14. How can we model BPMN parallel/exclusive/inclusive gateways with workflow nets?
15. What is Camunda? Which are the two "usage patterns" of Camunda?

16. Which are the main challenges in securing microservices? Which are the main "smells" in microservices security?
17. What is static/dynamic vulnerability analysis?
18. Which are the most frequent API security vulnerabilities?
19. What are authentication and authorization? What are SAML, OIDS and OAuth2.0?

20. When and where to start splitting a monolith codebase? How to split databases?
21. What is the CAP theorem? What is the SAGA pattern?
22. What is a (event) data pump?

23. What is Fog computing? What are (declarative) application placement and continuous reasoning over the Cloud-IoT continuum?
24. How can we assess the security level of an application deployment? How can we model trust?
25. What is secure FaaS orchestration?

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[1] For the students who successfully participated in the continuous assessment activities during the term.