

Web Application Development 2

Exam feedback, April/May 2021

As per recent years, the 2021 exam contained 30 multiple-choice questions, each of which carried 3 marks for a correct answer, -1 for an incorrect answer and 0 marks if left blank.

Being online open-book this year, some types of book-based questions that had been common in recent years were not included, and the exam leaned more on problem solving questions. However, this change of focus affected only a small number of questions, and the exam was overall very similar to those given in previous years.

The questions were organised roughly according to the following structure:

- Section A (1-10): general questions on web application development principles
- Section B (11-20): technologies such as CSS, JavaScript, JQuery, XML and JSON
- Section C (21-30): questions on Django models, views, templates and URLconfs

Overall the exam was done very well. 285 students sat the exam, with a mean of 22.3 out of 30 questions answered correctly. The overall mean, when taking into account the negative marks applied for incorrect answers, was 67% (2020: no exam, 2019: 62%, 2018: 59%, 2017: 52%, 2016: 55%). 10 students scored 100% on the exam.

The distribution of marks was as follows: 148 A, 51 B, 20 C, 20 D, 22 E, 10 F, 5 G, 9 H.

When factoring in the Rango exercise (weighted 10%), where the mean was A3 (2019: A4, 2018: A4), the individual mark for the team components (including design spec, presentation and project, weighted 40% in total), where the mean was B1 (2019: B1, 2018: B1), the quizzes (weighted 10%), where the mean was C3 (2019: A5, 2018: B1), together with the exam, the overall mean for the course was B3 (2019: B1, 2018: B2, 2017: B3, 2016: B3). The distribution of marks was as follows: 149 A, 39 B, 25 C, 28 D, 16 E, 7 F, 8 G, 3 H, 16 CR.

Table 1 shows the mapping of Intended Learning Outcomes to where they were assessed. Table 2 shows the percentages who answered each question correctly, incorrectly, or left it blank. Every question was answered correctly by over 50% of students except Q6, which was about HTML (elements, tags, nesting). Note: the April/May 2021 question solutions will not be made publicly available.

Learning Outcome	Where assessed
Describe and understand the opportunities and challenges involved in developing web applications and working in a distributed environment	Quizzes, Exam Section A
Use variety of dev tools and web technologies	Group Proj, Exam Sections A,B
Explain and describe the different high level system architectures common to the web	Quizzes
Explain the role of messaging and protocols within the design of web applications	Quizzes, Section B
Understand and interpret the design and specifications of a web application	Sections A, C, Group Proj
Construct, build and deploy a web application	Section C, Group Proj

Table 1: Mapping of ILOs to assessments

Question	% correct	% incorrect	% blank
1	67.37%	31.93%	0.70%
2	80.35%	17.54%	2.11%
3	66.67%	29.82%	3.51%
4	90.53%	8.77%	0.70%
5	82.46%	14.74%	2.81%
6	42.46%	56.14%	1.40%
7	89.47%	8.77%	1.75%
8	93.33%	5.96%	0.70%
9	75.44%	22.81%	1.75%
10	50.53%	44.91%	4.56%
11	75.09%	24.21%	0.70%
12	68.42%	30.18%	1.40%
13	75.44%	21.05%	3.51%
14	77.19%	18.95%	3.86%
15	81.40%	17.54%	1.05%
16	80.70%	14.74%	4.56%
17	90.18%	8.07%	1.75%
18	84.21%	14.39%	1.40%
19	60.70%	36.14%	3.16%
20	76.84%	21.75%	1.40%
21	58.25%	38.95%	2.81%
22	77.19%	20.70%	2.11%
23	78.25%	18.95%	2.81%
24	77.89%	20.70%	1.40%
25	79.30%	18.25%	2.46%
26	77.89%	19.30%	2.81%
27	63.16%	33.33%	3.51%
28	58.25%	39.65%	2.11%
29	71.93%	24.21%	3.86%
30	84.56%	12.63%	2.81%

Table 2: Percentages of students who answered correctly, incorrectly or left a blank response, for each question