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re: Board Meeting Wednesday Afternoon

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Good afternoon,

Please see below answers to your questions in regards to anomalies in the curriculum data. Additionally, we have attached a slide with a more concise version of these answers. If you have any additional questions, please do not hesitate to contact us.

Team Codeup Donuts

Woody Hayes, Cristina Lucin, Chris Rosenberger

Question 1: Which lesson appears to attract the most traffic consistently across cohorts (per program)?

· PHP cohorts:

- o Html-css,
- o java-I,
- o laravel intro,
- o javascript-i,
- o javascript-ii

· Java cohorts:

- o Javascript-i
- o html-css
- o jquery
- o java-i
- o spring

· Data Science:

- o Fundamentals (intro-to-data-science, AI-ML-DL-timeline, git),
- o sql/mysql-overview,
- o classification (overview, scale_features_or_not),
- o python (intro-to-matplotlib, advanced-dataframes, dataframes)

Question 2: Is there a cohort that referred to a lesson significantly more than other cohorts seemed to gloss over?

· There were several lessons that appeared as anomalies (see the value counts for each) for both Data Science and Web Development cohorts. We investigated if they are truly anomalies, and concluded that Data Science lessons had more disparate page views than those of Web development/PHP cohorts. For Data Science, Darden cohort looked at **classification overview** 1109 times, while Bayes cohort looked at classification overview 35 times. The other DS cohorts range from 60-445 times. In comparison, for Web Development cohorts, Java I, II, and III page views were examined and viewed a fairly proportional amount of times. Excluding page views of search features and indices, the trend for Web Development seems to be more balanced page views, though a statistical analysis of these is likely to yield some significant differences.

Question 3. Are there students who, when active, hardly access the curriculum? If so, what information do you have about these students?

· There were a significant number of student accounts who, while active, accessed the curriculum with less than 50 page views. Without having student information to verify, we concluded that these students are likely (with less than 10 page views), students who did not complete the course. Many of these students had page views towards the beginning of their assigned 'start date'. However, there were some anomalies. Student ID 832, for example, accessed curriculum pages two (2) times, in the middle of their assigned start dates. Student ID 812 accessed the curriculum seven (7) times towards the end of their program time. Further study is needed to answer these questions further.

Question 5. At some point in 2019, the ability for students and alumni to access both curriculums (web dev to ds, ds to web dev) should have been shut off. Do you see any evidence of that happening? Did it happen before?

· Regarding students being able to access other curriculums after 2019, we have limited evidence to support that the cutoff implemented was not effective. Our final project notebook shows records of students from data science cohorts accessing web development course info as late in 2019 as 12/14, as well as into 2020 and beyond.

Question 7. Which lessons are least accessed?

- o **PHP cohorts hit the following curriculum items very few times (one or two students per cohort):**
 - o Laravel (basic-routing, eloquent-orm),
 - o mysql (installing sequel pro, setting up sample db),
 - o php_ii (functions/definition and syntax),
 - o php_iii (php with html/sessions with php)
- o **Java cohorts hit the following curriculum items very few times (a couple of students per cohort):**
 - o php_i (intro-via-interactive-shell [doing-math-in-the-shell, hello-world-and-other-strings], types-and-variables-i),
 - o php_iii,
 - o php_ii
- o **Data Science cohorts hit the following curriculum items very few times (one or two students per cohort):**
 - o Classification(ensemble, project-old-exec, confusion maxtrix, svm)

[Quoted text hidden]



Anomaly Detection Project.pdf

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