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| **Application Number** | M71 |
| **Applicant** | Clément Aubert |
| **Position** | Assistant professor in Computer Science at the School of Computer and Cyber Sciences |
| **Institution** | Augusta University |
| **Email** | caubert@augusta.edu |
| **Team Members** |  |
| **Type** | Revision of pre-existing OER |
| **Course Number / Title** | caubert@augusta.edu |
| **Final Semester** | Spring 2020 |
| **Grant Amount** | $2,800.00 |
| **Works Being Revised** | CSCI 3410 - Database Systems -- Lecture Notes (Draft) http://spots.augusta.edu/caubert/db/ln/ (licensed under the CC BY 4.0 licence). |
| **Description** | My goal is to deliver a cross-platform, all-in-one resource on database systems for undergraduate, enthusiast high-school students, and persons in continuous training. The same document would be available to consult on-line (on a webpage), to print (as a pdf) as well as to edit (as a word document) and would contain:  - A large collection of exercises, exams, problems, as well as selected solutions, - A "hands-on" guide to install, configure and run various database management systems, - A compact guide to the most fundamental definitions and notions of the topic at stake, - Organized and up-to-date references.  This document would be used  - in class, in place of an expensive textbook (Fundamentals of Database Systems (7th Edition), ~ $185), as a support for teaching, as a replacement for individual homework, and to practice exams. - as a possible complementary resource for AIST 3410 - Database Management Systems, taught at Augusta University as well, - as a reference guide by alumni, - by anyone willing to practice core knowledge on database design, programming, study and implementation.  I believe this document would be well-received, for it fills the need for a textbook on database that  1. Incorporate the recent and popular NoSQL approach as a whole part, and not just as a side-topic, 2. Address the question of database from the design to its implementation in a streamlined way, 3. Place security at its core, instead of treating it as an afterthought. 4. Has its source code freely available and editable  A deep search on both https://www.merlot.org/ and https://open.umn.edu/ shows that no textbook meets all those requirement, and a total lack of res sources on NoSQL. |
| **Timeline** | I will teach this class in Spring 2019 and Spring 2020,  - Spring 2019: Polishing, testing and assessing the bank of problems, questions and tutorials. -- This part should be done and could be delivered independently as an "exercise textbook". - Summer 2019: Writing of additional material on security and professional responsibilities. -- Those could be delivered independently as blog posts. - Fall 2019: Hiring of a student assistant to proof-read, test and comment on the current draft throughout. The student would have ~60 hours to revise the material and discuss it with me. - Spring 2020: Implementing the modifications suggested during the Fall 2019, completing the narrative, updating the references and links to external resources. |
| **Budget** | $2,000: Salary for team member  $780: Salary for student assistant hired to test and proof-read the resource ($13 an hour, for 4 hours per week during 15 weeks)  $10: Donation to Rocketgit (https://rocketgit.com/), an on-line-service that hosts the source-code of the project for free  $10: Donation to Pandoc (http://pandoc.org/), a free software used to typeset the document. |
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