

Progress Report 1: Sports Management Portal for Injury Prevention, Performance, and Athlete Management Using Machine Learning

Prepared for

**CSIS4495 Applied Research Project
Section 002**

Presented to

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Table of Contents

Work Logs Page 01

Work Description Page 02

Repo Check-In Page 03



Work Logs

Page 01

Juan Carlos Katigbak		
Date	Number of Hours	Description of work done
January 16, 2025	2	Determining topic of research for Applied Research Project
January 17, 2025	2	Initial research on topic
January 22, 2025	4	Further research on topic
January 23, 2025	3	Create 1st draft of project proposal
January 24, 2025	2	Create Github repository with file "README.md" (filled up information in there) and folders "Implementation" (with file "index.html" just to brush up on HTML code), "Misc" (with research journals related to topic including file "References.docx"), and "ReportsAndDocuments" (with files "JuanCarlosK_Proposal.pdf" and "Work Date and Hours Logs for Student") - Added all of these to repo
January 26, 2025	3	Ready project proposal for submission
February 4, 2025	2	Accomplished DataCamp's "Introduction to Python" course and added to repo, under ReportsAndDocuments folder, a screenshot of my Statement of Accomplishment for this course complete with stopwatch log with the filename "Proof of Crash Course with Python via DataCamp.png" together with a pdf file named "datacamp Statement of Accomplishment - Intro to Python.pdf". Added also to repo under ReportsAndDocuments folder a screenshot of my old kanban card called "Crash Courses on Coding with Some Implementation - 21 hours.png" because I updated the kanban card to a new one to reflect the new schedule of when I could possibly accomplish this.
February 5, 2025	2	Stopped at Section 4: Python Crash Course, 10. Python Crash Course - Part 1 of Udemy's "Python for Data Science and Machine Learning Bootcamp" course and added to repo, under ReportsAndDocuments folder, a screenshot of this which includes a stopwatch log with the filename "Proof of Udemy - Python Crash Course Part 1 of 6.png". Also added folder named "Repo for Python Data Science and Machine Learning Bootcamp" and e-book with filename "Learn to Code with Basketball 3rd Edition.pdf" to Misc folder as references for my Python/ML learning to use for implementing my project.
February 7, 2025	3	Did some non-coding research such as looking for extra research on my topic as well as what possible programming language to use. Fixed and updated Repo folders: 1. Misc folder - contains a Books folder where I placed the e-book with filename "Learn to Code with Basketball 3rd Edition.pdf" as well as added 3 new books (2 books about Basketball Strength and Conditioning and 1 book about Python Crash Course hands-on and project-based), contains a Research Journals and Studies folder where I placed all my research journals and added a new journal file "Strength and Conditioning Practices of NBA Strength and Conditioning Coaches.pdf", updated the References document to reflect this; 2. ReportsAndDocuments - contains a Proof of Crash Courses to Learn Code folder which has all my screenshot proofs of the courses that I have been taking including repo Python code and study notes of the courses.
February 8, 2025	1	Finished "JuanCarlosK_ProgressReport1.pdf", uploaded it on Blackboard and added it to Repo



Work Description

Page 02

Last week was the end of PHASE 1: Research and Planning which culminated with the submission of the final project proposal last January 26, 2025. This week starting February 4, 2025, I began PHASE 2: Crash Course Coding, Some Implementation, and Data Collecting focused on quickly doing some crash courses and research to support my project which is looking like it will be implemented using the Python programming language. I successfully completed DataCamp's "Introduction to Python" course, documenting my progress with proof of completion and adding relevant files to the repo. I advanced in Udemy's "Python for Data Science and Machine Learning Bootcamp," stopping at Section 4 of the Python Crash Course for further review. During this time, I refined my repo structure by creating dedicated folders, adding an e-book titled *Learn to Code with Basketball 3rd Edition*. My work extended to non-coding research, identifying further relevant research on my project and programming languages. Additionally, I did a proof of concept which is a learning log app using Django Python web framework and I acknowledge one of my book references [Matthes, E. (2023). *Python crash course 3rd edition: A hands-on, project-based introduction to programming*. No Starch Press.] for providing me with a step-by-step approach how I can create this full stack for my project. The proof of concept has 4 parts and I was able to finish the first part where I had to create a database using SQLite, define/activated/migrated models in the Django admin page accessed by using a virtual environment, and wrote simple HTML code. The next parts of the proof of concept require me to finish creating user accounts, style/deploy the app, and apply machine learning models/frameworks on the NBA datasets that I will be getting. My obsessive-compulsive nature of structuring and documenting was in full display when I further organized my repo meticulously, trying to make sure that all of these files can be easily found. Finally ended the week by finishing Progress Report 1 which I uploaded to Blackboard and added to the repo.



Repo Check-In

Page 03

The files and folders I have checked in the repo are as follows:

1. Implementation folder - contains a Proof of Concept with zipped folder named "learning_log.zip" containing a learning log app using Django Python web framework as a proof of concept for my project and this is found under Proof of Concept Part 1 of 4 folder. The Implementation folder also contains a folder called "NEW - Supporting Docs Proof of Concept Part 1 of 4" which contains files with names "1. Server Code.pdf", "2. Shell Code.pdf", "Proof of Concept Part 1 of 4.png" which is a screenshot that contains a stopwatch log. I give acknowledgement to one of my book references [Matthes, E. (2023). Python crash course 3rd edition: A hands-on, project-based introduction to programming. No Starch Press.] for providing me with a step-by-step approach how I can create this full stack for my project.

2. Miscellaneous folder - contains a Books folder where I placed the e-book with filename "Learn to Code with Basketball 3rd Edition.pdf" as well as added 3 new books (2 books about Basketball Strength and Conditioning and 1 book about Python Crash Course hands-on and project-based), contains a Research Journals and Studies folder where I placed all my research journals and added a new journal file "Strength and Conditioning Practices of NBA Strength and Conditioning Coaches.pdf", updated the References document to reflect this.

3. Reports & Documents folder - contains a Proof of Crash Courses to Learn Code folder which has all my screenshot proofs of the courses that I have been taking including repo Python code and study notes of the courses. Also includes this Progress Report 1.

