Project Proposal

For

<Economy Fueler>

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Cycle: 1
Date Submitted: 2021/5/14

Grading Rubric – Project Proposal

This rubric outlines the grading criteria for this document. Note that the criteria represent a plan for grading. Change is possible, especially given the dynamic nature of this course. Any change will be applied consistently for the entire class.

Achievement	Minimal	Exemplary	Pts	Score
Content	Section(s) missing, not useful, inconsistent, or wrong.	Provides all relevant information correctly and with appropriate detail		
Project			30	
Team			10	
Timeline			30	
Grammar and Spelling	Many serious mistakes in grammar or spelling	Grammar, punctuation, and spelling all correct	10	
Expression **Tone**	Hard to follow or poor word choices Tone not appropriate for technical writing	Clear and concise. A pleasure to read Tone is consistently professional	10	
Organization **Layout**	Information difficult to locate Layout is inconsistent, visually distracting, or hinders use	All information is easy to find and important points stand out Layout is attractive, consistent, and helps guide the reader	10	
Late Submission				
Total			100	

Project Proposal

This report documents the initial definition of the project. It includes an abstract and project overview. It also includes a summary of issues related to the project and to the team.

Project

Project Name: Economy Fueler

Abstract

Our product mainly focuses on the companies whose scale is not that large but have the ambition about making themselves stronger thorough timely financial analysis and evaluation. Based on the financial data that the companies provided and the industrial standards, we will make analysis reports and loan recommendations which may guide them in their way of development. That's why we named our product Economy Fueler.

Project Deliverables

- **Front End Build**
  1) Interaction with the user interface
  2) Upload the specific type of files (which has the required information about their finance) and submit them
  3) Choose the corresponding function (which include the three different levels of analysis in the websites' navigation bar)

     [In view of feasibility and complexity, the functionality of the third level of analysis will not be implemented this semester.]
- **Data Processing**
  1) Store the data inputted by users into database
  2) Basic data processing including the classification (such as the definition of basic attributes like the value, names and keys) and simple mathematical calculations.
- **Back End Built**
  1) Connect the server with the database that has been set the password
  2) Financial analysis displays on the user's page (including analysis of profitability and cash flow etc.)
  3) Loan possibility analysis displays on the user's page (calculated by specific formulas)
  4) Enterprise strategy analysis displays on the user's page [This will not be implemented this semester]
  5) Websites information displays on the background

6) Change the data in the database by background

Resources

- Hardware
  1) Personal Computers (Desktop/Laptop)
  2) Data storage devices
- Software
  1) PyCharm 2020.3.5
  2) MySQL 8.0.23
  3) Adobe Dreamweaver 21.1
  4) Cloud Database (may be implemented)
- Database Access

  Access to the CNRDS for its economic database.

Expertise

1) User interface design using HTML, CSS, JavaScript and Dreamweaver.

   This skill has been learned.

2) Front end and background development using Django.

   Learning material:

   a) William S. Vincent, *Django for beginners: Build websites with Python and Django*, WelcomeToCode, August 10, 2020.

   b) Yongxiang Huang, *Proficient in Django web development*, Tsinghua University Press, 2020.

   c) Official document of Django.

   d) Technical website such as CSDN.

3) Financial modeling

   Learning material:

   a) Martin Fridson, Fernando Alvarez, *Financial Statement Analysis: A Practitioner's Guide (Fourth Edition)*, Pearson, June 2019.

   b) Ren He, *Financial Statement Analysis*, Shanghai University of Finance & Economics Press, January 2008.

   c) Online material

4) Data processing and database building using MySQL 8.0.

   Learning material:

a) Abraham Silberschatz, Henry F. Korth, S. Sudarshan, *Database System Concepts (Sixth Edition)*, McGrawHill Education, January, 2013.
b) Ben Forta, *MySQL Crash Course*, SAMS, January, 2009.
c) MySQL official document
d) ER graph.
e) Technical website such as CSDN.

Team

Team Members and Roles

Figure 1, below, identifies all the team members and the initial role assigned to each person.

Name	Role
Lixiao Yang	▪ Project Manager ▪ Using MySQL 8.0 to create the relational database ▪ Refining models through financial material ▪ Assist in the development of algorithms
Jiahe Xie	▪ Technical Director ▪ Using Django 3.1.7(in PyCharm 2020 3.2 x64), JQuery 3.6.0 and MySQL 8.0 to develop the back end and interact with front end.
Aoyu Liu	▪ Developer ▪ Using Django 3.1.7 (together with PyCharm 3.5) and bootstrap 3.4.1 to develop the website and enable it to interact with the users and backend.
Xinyue Zeng	▪ Developer ▪ Using PyCharm 3.5 to create the exchange of data and REST to create API. ▪ Using MySQL 8.0 to create relational database
Huiru Chang	▪ Developer ▪ Using Dreamweaver to design and develop user interface. ▪ Assist in the financial modeling process

Figure 1 - Team Members and Roles

Timeline

The figure below shows the initially identified set of activities for this cycle.

Economy Fueler Project Gantt Chart

CI 103 Introduction to Computing and Information Security

Cycle highlights 14 | Estimated | Actual | Finished | Actual (over plan) | Finished (over plan)

Task Name	Person in charge	Estimated Start Time	Estimated Duration	Actual Start Time	Actual Duration	Priority	Completion Percentage
Comprehensive Scheduling and Planning	杨力骁	1	35	6	30	M	30%
Front End Group	刘骜宇	1	16	6	11	M	82%
UI Design	常慧茹	1	9	6	4	L	100%
Login interface and back-end interaction	刘骜宇	6	5	6	5	L	100%
UI Implementation & Jumping	刘骜宇	11	6	11	6	H	67%
Data Group	曾昕玥	6	20	6	20	M	45%
File Format Conversion	曾昕玥、杨力骁	6	4	6	4	L	100%
Database Architechture Building	曾昕玥、杨力骁	6	10	6	10	H	90%
Database Functions Building	曾昕玥、杨力骁	16	11	0	0	M	0%
Algorithm Group	谢佳和	13	14	13	14	M	14%
Design the Python Script to Extract Data	谢佳和、刘骜宇、杨力骁	13	3	13	3	H	67%
Design the Ptrhon Script for Calculations	谢佳和、刘骜宇、杨力骁	16	3	0	0	L	0%
Write the Comparison Logic in Django	谢佳和、刘骜宇、杨力骁	18	9	0	0	L	0%
Data Visualization Group	谢佳和	23	4	0	0	L	0%
Finance Group	杨力骁	1	23	6	18	M	50%
Material Reading and Research	杨力骁、常慧茹	1	23	6	18	H	50%
Finance Analysis Modeling	杨力骁、常慧茹	10	11	11	10	H	40%
Loan Likelihood Analysis Modeling	杨力骁、常慧茹	21	3	0	0	L	0%
Back End Group	谢佳和	13	16	13	16	M	13%
Background Layout Building	谢佳和、刘骜宇	13	3	13	3	H	67%
Platform Information Display	谢佳和、刘骜宇	23	3	0	0	L	0%
Background Function Realization	谢佳和	26	3	0	0	L	0%
Parallel Testing Phase	全体成员	29	7	0	0	L	0%

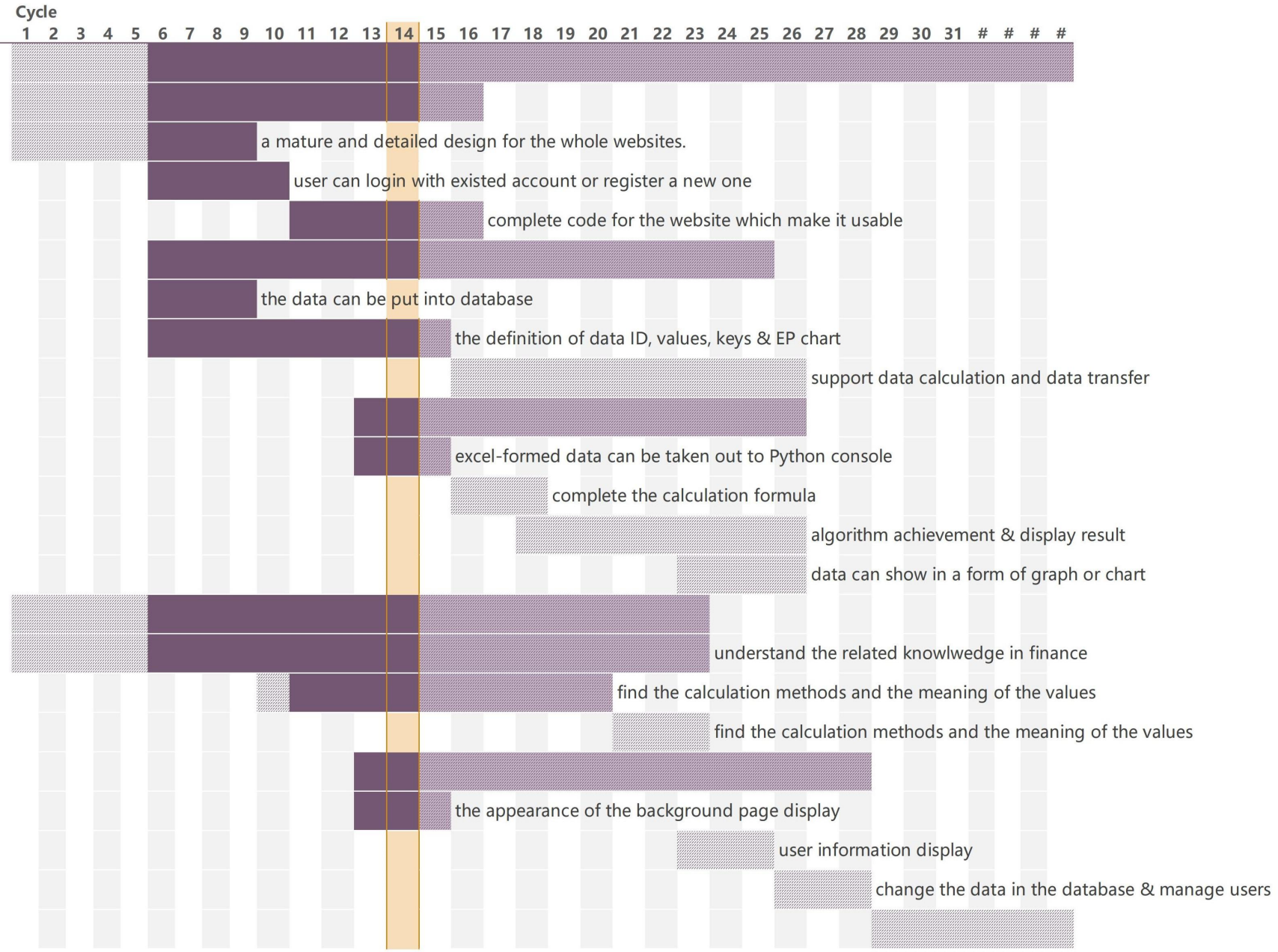

Figure 2 – Project Timeline