[PLACEHOLDER TITLE: STEM Course Selector for Pisay Students]

A Project Proposal for a STEM Course Selector for Pisay Students

Computer Science 2 Quarter 1 Project

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Problem Statement

We've all had that phase where the only thing people would ask you is "what do you want to be when you grow up?". Now, as Pisay scholars, it's only upgraded to "What STEM course do you want to take?". Some of us had direct answers to both, a clear vision of their future, but others had a hard time choosing. Medicine or engineering? Technical or creative course? Questions like that ringed in their head every time they were asked that question, and it remained in their head, with no one to help them figure out their own set goal. That is a problem. Without knowing which direction you want to go after graduation—which will fly by faster than you expect—you wouldn't be able to pick an elective for senior high school. You won't know what topic actually catches your eye in the research subject, and many many more people repeating the question, "What STEM course do you want to take?" if these people do not figure out a course that calls to them.

Project Objectives

Objective 1

To aid Pisay students in picking a possible career path if they have not decided yet. Particularly before they reach grade 11 so they can choose which elective subjects to take based on the result of this quiz, or before graduation, basing off what electives they took in senior high school (grade 11-12).

Objective 2

To learn more about STEM careers to help even the gamemakers decide what course they can take. For instance, one of the results required in this quiz is a physicist. We would have to research what a physicist's usual interests and required subjects are, therefore learning more about them, and if one gamemaker aligns their interests and subjects, then they can have the opportunity of being a physicist open to them.

Planned Features

Feature 1

Explanation presented to the user about the purpose of this STEM course selector (see **Project Objectives**)

Example (might change in the coding process):

Hello, [user] ! This STEM selection course is meant to help you pick a possible career in the future [:)] if you're struggling to choose. We understand that, after all, there are only so many things you can pursue. But before all of that, let's see what a past life looks like…

Feature 2

Alongside the result (a STEM course), there will be a list of possible electives and specific jobs assigned to the result.

Example:

You can become a Biologist !

Possible electives to take (incoming grade 11-12):

- Biology
- Anatomy
- Mathematics
- Biochemistry
- Biophysics

Possible Careers for a Biology Major

- Biology Researcher
- Pathology (Microbiology)
- Biomedical Engineer
- Biotechnologist
- Marine Biologist
- Biology Teacher/Professor (requires additional education degree)

Planned Inputs and Outputs

Input 1

The user will list electives they took or plan to take in their senior high school years

Output 1

Introduction (see **Planned Features —> Feature 1**)

Output 2

Result + Electives to take + Possible Career Paths (see **Feature 2**)

Logic Plans

Pseudocode

```
Function Main
    Declare String elective, choice
    Declare Integer menu

    Output "Please input your chosen elective or your future elective: "
    Output "Computer Science, Robotics, Engineering, Environmental Science, Physics, Chemistry, Biology, Math."
    Input elective
    If elective == "Computer Science"
        Call comscie
    Else
        If elective == "Robotics"
            Call rbot
        Else
            If elective == "Engineering"
                Call eng
            Else
                If elective == "Environmental Science"
                    Call envis
                Else
                    If elective == "Physics"
                        Call phy
                    Else
                        If elective == "Chemistry"
                            Call chem
                        Else
                            If elective == "Math"
                                Call math
                            Else
                                Output "Invalid response."
```

```
                    End
                 End
              End
           End
        End
     End
  End
End

Function chem
End

Function comscie
   Declare Integer num
   Declare String job

   Output "Do you code for leisure or for purpose?"
   Output "Press 1 for leisure, press 2 for purpose."
   Input num
   If num == 1
      Output "Code games or code other things?"
      Output "Press 1 for games, press two for miscellaneous."
      Input num
      If num == 1
         Output "Code playable games or code things FOR games?"
         Output "Press 1 for active games, press 2 for game resources."
         Input num
         If num == 1
            Output "Your ideal STEM aligned profession is a game developer/engineer!"
         End
      Else
         Output "Quality of life improvers, or just for funsies?"
         Output "Press 1 for life, press 2 for fun"
         Input num
         If num == 1
            Output "Your ideal STEM profession is a general computer programmer!"
         Else
            Output "Your ideal STEM profession is a general computer program debugger!"
         End
      End
   Else
      Output "Software resources or other applications?"
      Output "Press 1 for software, press 2 for other."
      Input num
      If num == 1
         Output "Write code for software, or debug software?"
         Output "Press 1 for writing, press 2 for debugging"
         Input num
         If num == 1
            Output "You ideal STEM aligned profession is a software engineer!"
         Else
            Output "Your ideal STEM aligned profession is a computer programmer!"
         End
      Else
```

```
            Output "Retail or Education?"
            Output "Press 1 for retail, press 2 for education."
            Input num
            If num == 1
                Output "Teach or oversee?"
                Output "Press 1 for teaching, press 2 for overseeing."
                Input num
                If num == 1
                    Output "Your ideal STEM aligned profession is a computer lab assistant!"
                Else
                    Output "Your ideal STEM aligned profession is a computer science teacher!"
                End
            Else
                Output "Face of the business or THE business?"
                Output "Press 1 for the face of the business, press two for the business itself."
                Input num
                If num == 1
                    Output "Your ideal STEM aligned profession is a website developer!"
                Else
                    Output "Your ideal STEM aligned profession is a data analyst!"
                End
            End
        End
    End
End

Function eng
End

Function envis
End

Function math
End

Function phy
End

Function rbot
End
```