SENA	**SERVICIO NACIONAL DE APRENDIZAJE – SENA** **CRONOGRAMA DE ARTICULACIÓN CON LA EDUCACIÓN MEDIA** **TRANSVERSALIDAD INGLÉS** **WORKSHOP 4 – PRGRAMMING LANGUAGES**

Objective: By the end of the workshop, students will be able to:

- Apply knowledge of programming languages and software development to design a conceptual programming language.
- Integrate pedagogical principles for language learning into an app concept.
- Develop a written proposal that explains the design choices.
- Present a **digital output**: a mockup, prototype, or code snippet demonstrating their concept.

Activity 1

1. Discuss and answer the next questions with your group and create a general concept.

- What apps exist for language learning? (Duolingo, Memrise, Babbel, etc.)
- What features make them effective?
- What limitations do they have?

Activity 2

1. In small groups, create the basic rules of a programming language that will be used to build educational exercises.

Define:

- **Syntax:** How instructions are written (e.g., teach("hello") or quiz(word="apple")).
- **Data Types:** Words, sentences, grammar rules.
- **Commands/Functions:** For teaching, practicing, and assessing (e.g., listen(), repeat(), score()).
- **Control Flow:** How the app decides next steps (if correct → go next, if incorrect → repeat).
- **Deliverable:** Write a **language specification document** (1–2 pages).

Activity 3

1. Use the programming language chosen to design a simple **app workflow**.

- Define the **target audience** (kids, teens, adults).
- Write an example of how the language would "code" a learning activity.
- Sketch the **UI/UX design** (paper prototype or digital wireframe).
- Tools you can use: Figma, Canva, or simple PowerPoint slides.

Activity 4 - Prototype

1. Build a **digital demo**:

- Option A: Create a mockup of the app interface showing how activities would look.
- Option B: Develop a small **working code snippet** using pseudocode or a real programming language (Python/JavaScript) to simulate their invented commands.

Activity 5

1. Prepare a written report (3–4 pages) that includes:

- Introduction to their programming language.
- Syntax and commands description.
- Example activity coded in their language.
- Description of the app concept and how it supports English learning.
- Reflection on how it could be extended to other languages.

Activity 6 – Presentation

1. Each group presents:

- The concept of their programming language.
- A walkthrough of their app (mockup/demo).
- A reflection on challenges and solutions.

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Criteria	Excellent	Good	Satisfactory	Needs improvement
Innovation & Creativity	Very original programming language and app idea.	Some creativity, good adaptation.	Average originality.	Limited or copied ideas.
Technical Design	Clear syntax, logical structure, good pseudocode or prototype.	Syntax defined, minor gaps.	Syntax unclear or incomplete.	Very weak technical proposal.
Educational Relevance	Strong link to language learning, pedagogical methods integrated.	Clear educational purpose, some gaps.	Weak link to learning.	No educational relevance.
Written Report	Clear, organized, professional.	Generally organized, minor errors.	Basic, some disorganization.	Unclear, missing sections.
Presentation & Digital Result	Engaging, professional, clear demo.	Good delivery, demo works.	Limited clarity, demo incomplete.	Very unclear, no demo.