

Lacrosse Shoe Customizer - 8-Day Development Plan

Working Hours: Monday to Thursday, 11:00 AM to 3:00 PM

Total Working Days: 8

Day 1 (Monday) - Planning & Setup

Goals:

- Draft algorithm with decision logic
- Design flowchart
- Initialize project directory with shell commands

Tasks:

- Write a 6+ step numbered algorithm that includes Boolean/conditional logic
- Design a flowchart using Start, Stop, Input/Output, Process, and Decision symbols
- Use terminal commands: `mkdir`, `cp`, `mv`, `rm`, `less`

Deliverables:

- `Algorithm.txt`
 - `Flowchart.pdf` or `.png`
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Day 2 (Tuesday) - Input Collection & Logic Building

Goals:

- Collect user input
- Add if-else structures with Boolean logic
- Use descriptive variables

Tasks:

- Prompt for player position, cleat style, color, size
- Implement `if` and `if-else` blocks for decisions
- Use variables like `user_position`, `cleat_style`

Deliverables:

- Updated `customizer.py` with user input and conditionals

Day 3 (Wednesday) - Loops & Data Types

Goals:

- Introduce iteration with `for` and `while` loops
- Apply multiple data types

Tasks:

- Add `while` loop for repeat customization
- Use `for` loop to iterate through options
- Include string, int, list variables

Deliverables:

- Loop-enabled version of `customizer.py`
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Day 4 (Thursday) - Modularization with Functions

Goals:

- Create and utilize reusable functions
- Add function with return value

Tasks:

- Write `get_user_input()`, `recommend_shoe()`, `display_summary()`
- Use one function that returns a computed value
- Add comments for all functions

Deliverables:

- Modular, documented code in `customizer.py`
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Day 5 (Monday) - Lists & File Handling

Goals:

- Manage data using lists
- Implement file read/write

Tasks:

- Store feature options in a list
- Read from `shoe_templates.txt`
- Write customization output to `summary.txt`
- Iterate over list items with logic

Deliverables:

- Functioning file operations with list manipulation
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Day 6 (Tuesday) - Exception Handling**Goals:**

- Add robust error handling

Tasks:

- Use `try/except/else/finally` in file operations or input
- Handle invalid input and file errors

Deliverables:

- Exception-safe code with documentation
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Day 7 (Wednesday) - Shell Scripting Tasks**Goals:**

- Complete shell command requirements

Tasks:

- Use commands: `mkdir`, `cp`, `mv`, `rm`, `less`
- Use command arguments
- Create an alias and customize terminal prompt
- Switch shell (e.g., from bash to zsh)

Deliverables:

- Screenshots or terminal logs showing execution

Day 8 (Thursday) - Final Testing & Submission

Goals:

- Test all functionality
- Final review and documentation

Tasks:

- Run through full customization multiple times
- Validate all rubric requirements met
- Add final code comments and clean up
- Prepare final submission package (code, flowchart, algorithm, logs)

Deliverables:

- Final `customizer.py`, `flowchart`, `algorithm`, `summary.txt`, screenshots