Name That Artist Powershell Brief

2d Lt Santalov, 2d Lt Eaby, 1st Lt Carrasco, Capt Robertson

Overview

- Time Hack
- Team Positions
- Mission
  - Mission Statement, Objectives, End-State
- Architecture
  - Diagram, Global Variables, Function Overviews
- Communication Plan
  - PACE
- Contingencies
- Extras

Time Hack

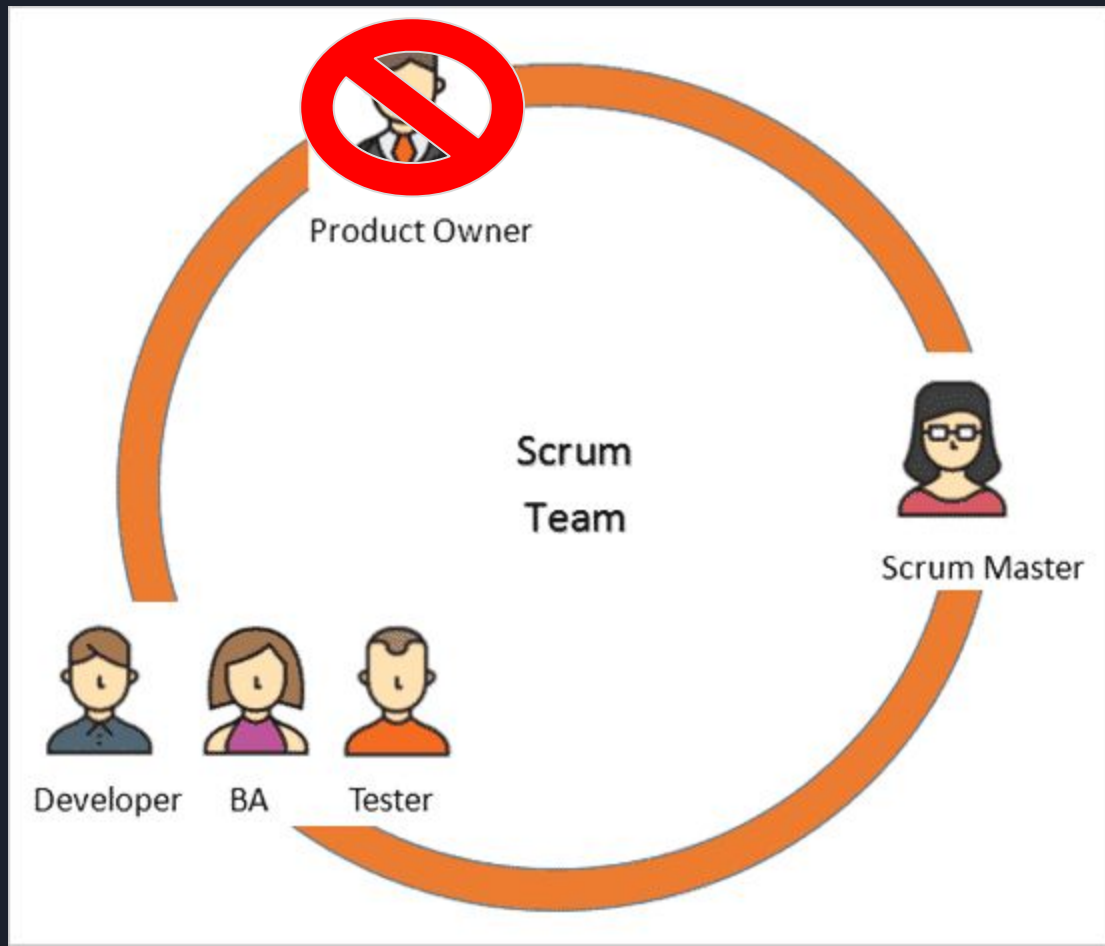**Briefing Duration**

8-12 minutes

Demo

~10 minutes

Team Positions

<u>Scrum Master</u> - Capt Robertson

<u>Team Architect</u> - 1st Lt Carrasco

<u>Developer</u> - 2d Lt Eaby

<u>QA Tester</u> - 2d Lt Santalov

Product Owner

Scrum Team

Scrum Master

Developer   BA   Tester

Mission Objectives

Specified Objectives

- Must include at least 3 functions
- Must include at least 4 variable types to include Boolean, Number, String, Array, and Hash Tables
- Must include a while loop, for loop, and for each loop
- Must use an if/else statement and switch statement
- Must use some sort of input validation
- Use commenting throughout the script

Implied Objectives

- Game is fun!
- Game does not contain bugs/issues

Mission

Intent: Create a fun game to test your musical knowledge

Tactical End-State: Obtain highest score possible

Fact: Use the Top 500 most popular songs according to Rolling Stone Times. Each right answer gives 100 points*

Assumptions: Player is familiar with most songs due to popularity

Constraints: The Player must input full artist name. For example (The Beatles, The Smiths, etc)
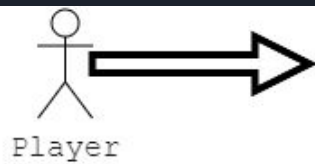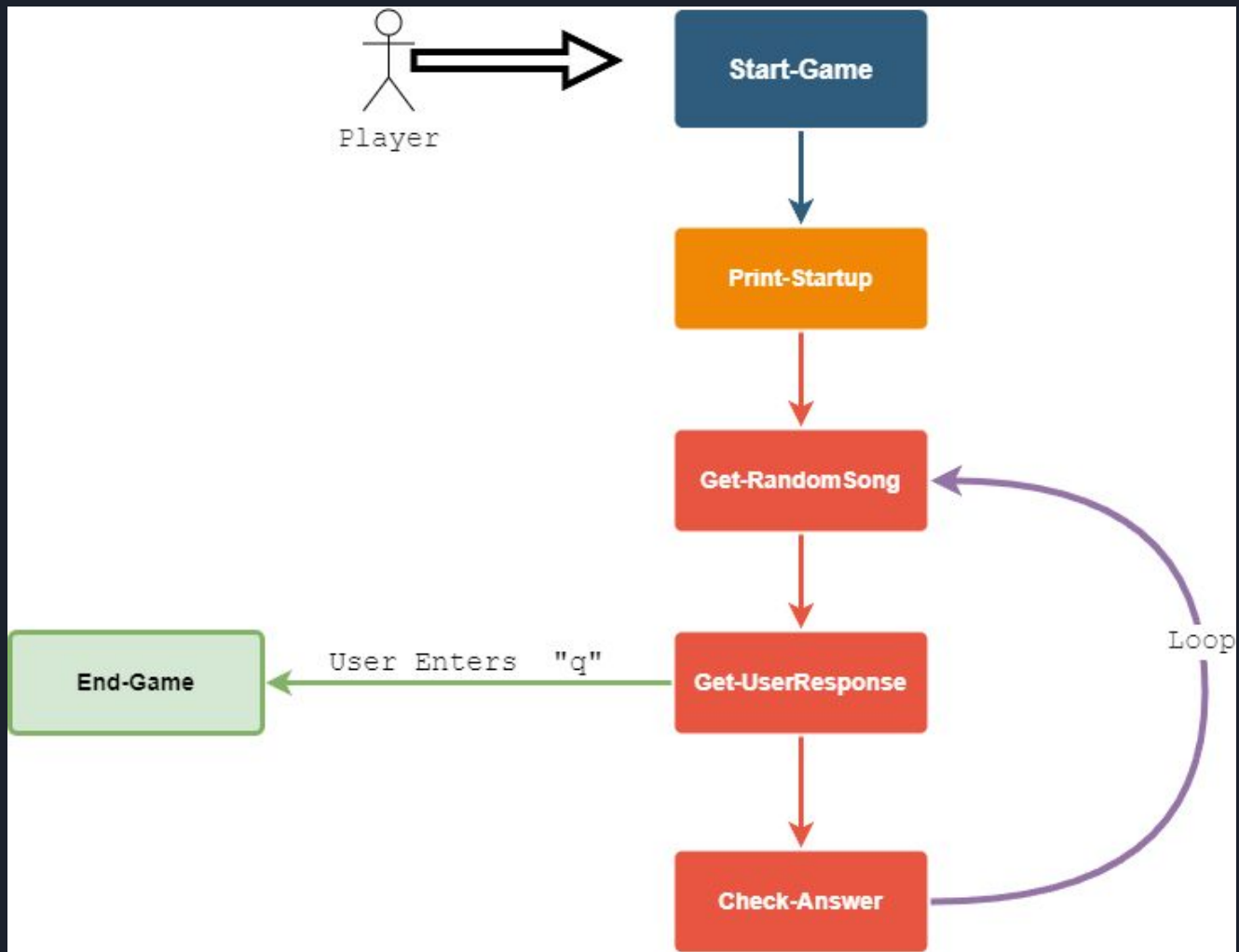
Global Variables

```
$songLibrary = (Get-Content '\songs' | ConvertFrom-Json).data

$score = 0

$correctAnswers = @()

$streak = 1

$team = @("Chad Robertson", "Samuel Carrasco", "Seth Eaby", "Alex Santalov")
```

Start-Game Function

- Entry point to the game
- Calls Print-Startup
- Contains "while loop" block
  - Calls Get-RandomSong
  - Calls Get-UserReponse
  - Calls Check-Answer
- Calls End-Game if "q" is entered

Print-Startup Function

- Prints Welcome Banner
- Prints Game Title
- Prints Team

Get-RandomSong Function

- Fetches random song from the Library (use built-in function)

Get-UserResponse Function

- Prompt user for artist name
- Show user how to exit the game
- Store user input

Check-Answer Function

- Compare user input to correct value
- Determines what to print
  - Correct
  - Incorrect

End-Game Function

- Prints list for all correct answers
- Thanks the user for playing

Function Objective

- TO1: Must include at least three functions
- MOE: Script contains a six functions
  - TT1: Create Start-Game function
    - MOP1: 1/6 functions created
  - TT2: Create Print-Startup function
    - MOP1: 2/6 functions created
  - TT3: Create Get-RandomSong function
    - MOP1: 3/6 functions created
  - TT4: Create Get-UserReponse
    - MOP1: 4/6 functions created
  - TT5: Create Check-Answer function
    - MOP1: 5/6 functions created
  - TT5: Create End-Game function
    - MOP1: 6/6 functions created

Variable Objective

- TO1: Must include at least 4 variable types to include Boolean, Number, String, Array, and Hash Tables
- MOE: Script contains all 4 variable types
    - TT1: Create Boolean variable ($isEmptyScore)
        - MOP1: 1/1 Boolean variables
    - TT2: Create Number variable ($score, $streak)
        - MOP1: 2/2 functions created
    - TT3: Create Create String variable
        - MOP1: 7/7 string variables
    - TT4: Create Hash-Map ($songLibrary)
        - MOP1: 1/1 Hash-Map variables
    - TT4: Create Array variable ($team, $correctAnswers)
        - MOP1: 2/2 Array variables

Loop Objective

- TO1: Must include a while loop, for loop, and for each loop
- MOE: Script contains all loops present
  - TT1: Create a while loop
  - TT2: Create for loop
  - TT3: Create for each loop

Control Flow Objective

- TO1: Must use an if/else statement and switch statement
- MOE: Script contains all loops present
  - TT1: Create if/else block
  - TT2: Create switch statement

PACE Tools

- Primary : Visual Studio Code

- Alternate: Powershell ISE

- Contingency: Online PowerShell Editor (https://tio.run/#)

- Emergency: Notepad

Contingencies

- Unable to run script on instructor computer
  - Solution: Use personal laptop to run

Extras

- Getting multiple correct answers in a row increases your streak
- Higher streak serves a score multiplier
- If a user gets a score of zero a donkey is displayed
- All the correct answers the player got will be displayed at the end
- Will display right answer after an attempt

Questions?