

ELIGIBILITY

- a. All Texas TSA student members over 13 may enter this event
- b. A team will consist of 2 members
- c. Members must complete a designated portion (Unit 1) of the Mastery Coding Computer Science Foundations course prior to competition.

MEMBERS MUST SUPPLY

A device with a keyboard capable of running a modern web browser effectively (See Technical Specifications)



PROJECT PROPOSAL

Over the next month, you and your teammate will apply your Python fundamentals to create an interactive, command-line program that brings the excitement of Madden NFL to life. Your final project should:

- 1. **Incorporate a Madden NFL Theme:** Reference teams, plays, scoring, or other football elements to immerse users in a quick, fun football experience.
- 2. **Provide User Interaction:** Prompt the user for input (e.g., which play to run, how to line up on defense) and display different outcomes based on their choices.
- 3. **Handle Invalid Inputs:** Make sure your program does not crash when the user enters something unexpected. Instead, guide them to correct their input.
- 4. **Use Python Concepts:** Demonstrate variables, data types, conditional logic, loops, and problem-solving strategies covered in your coursework.
- 5. **Deliver a Clear Output:** Ensure all user prompts and printed messages are easy to understand, so even non-programmers can enjoy and evaluate your work.

You have one month to complete this project. During that time, you will:

- Work in a team of two to design and implement your code.
- Test your program thoroughly to ensure it meets all competition requirements.
- Submit a finished project that is both functional and fun to use.

COMPETENCIES

Python Syntax

Variables and Data Types

Conditional Logic

Loops

Problem Solving

Program Input and Output

Program Design

TECHNICAL SPECIFICATIONS

OPERATING SYSTEM

• **Chromebook**: Chrome OS 100.0 or later

• **Windows**: 7,8,8.1,10 or later

• **MacOS**: OS X 10.11 or later

 Linux: 64-bit Ubuntu 18.04+, Debian 10+, openSUSE 15.2+, or Fedora 32+

HARDWARE

• RAM: 4GB minimum (8 GB recommended)

• **Peripherals**: Keyboard and Mouse or Touchpad



COMPETITION DETAILS

METHOD OF EVALUATION

- Judges will grade the final application based on a rubric that assesses its capabilities.
- Judges will not have to evaluate the code itself, only the behavior of the final application.

LENGTH OF EVENT

Teams have one month to complete this project



PROJECT SUBMISSION

- Students download the project as a zip file and submit it to the judging drive at <u>TSA 25-26 CSF</u> <u>Projects - Judging Folder</u>
- The file name should consist of both contestants' first initial and last name in alphabetical order separated by a hyphen for easy identification and retrieval by the judges. For example, if the two contestants are Barbara Liskov and Travis Kelce, the name should be tkelce-blivskov.zip
- 3. All code necessary to run the program should be in the zip file.



RUBRIC

Criteria	Below Avg (1-5)	Average (6-10)	Good (10-15)	Excellent (16-20)	Points
Adherence to Requirements	Few or no prompts. Crashes on invalid inputs.	Some prompts. Partial error handling.	Multiple prompts. Typically handles invalid inputs with messages.	Clear, consistent user prompts. Always handles invalid inputs without crashing.	/ 20
Program Flow & User Experience	Confusing prompts and structure. Unclear or random responses.	Generally follows a sequence, but can be disjointed. Some responses are unclear.	Logical sequence of prompts. Responses make sense and guide the user effectively.	Very smooth, intuitive flow. Responses are clear and cohesive; easy to follow from start to finish.	/ 20
Interactivity & Input Handling	Accepts little user input or ignores mistakes. Crashes or halts easily.	Basic input used Some incorrect inputs may cause issues.	Actively reacts to user input. Invalid entries usually prompt a retry.	Highly interactive; all incorrect entries are met with clear, helpful feedback. The program never crashes unexpectedly.	/ 20

RUBRIC

Criteria	Below Avg (1-5)	Average (6-10)	Good (10-15)	Excellent (16-20)	Points
Madden NFL Integration	Feels generic or unrelated to football. Minimal or forced references.	Some basic football terms, but not deeply integrated.	Football/Madden elements feel purposeful. Scoring or plays are obviously related to user choices.	Madden NFL elements throughout and relevant to interactions. Multiple realistic references (teams, scoring, strategies, etc.).	/ 20
Engagement & Problem-Solving	Repetitive or trivial tasks. Little impact from user choices.	Simple scenario or minimal branching outcomes.	User choices lead to varied outcomes. Some sense of strategy or problem-solving.	Highly engaging and strategic. Multiple branching possibilities; choices significantly affect the outcome.	/ 20

EXAMPLE PROJECT DELIVERABLE

Example Project Delivasdasdfa erable

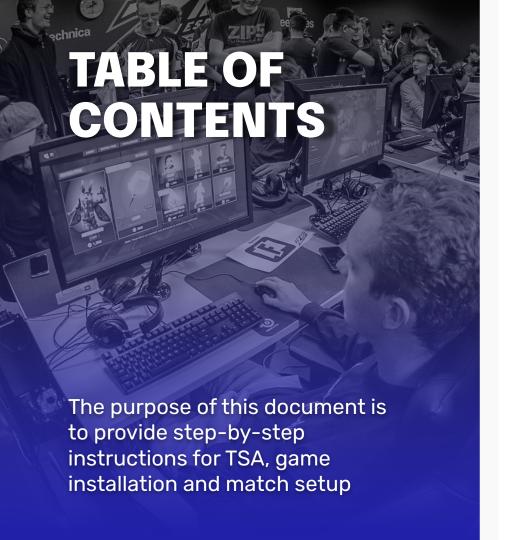
asdfasdasdfadf

```
Python
# Madden NFL Play & Score Simulator
print("Welcome to the Madden NFL Play & Score Simulator!")
print("In this interactive program, you'll coach your team to victory.\n")
# 1. Get the user's team name
team_name = input("Enter the name of your NFL team: ").strip()
while not team_name:
   print("Team name cannot be empty. Please try again.")
   team_name = input("Enter the name of your NFL team: ").strip()
print(f"\nGreat choice! The {team_name} are gearing up on the field.\n")
# 2. Choose an offensive strategy
print("=== Offensive Drive ===")
print("Your team is on offense. Choose a play:")
print("1) Run the ball")
print("2) Short pass")
print("3) Deep pass")
print("4) Field goal attempt")
offense_choice = input("Select an option (1, 2, 3, or 4): ")
while offense_choice not in ["1", "2", "3", "4"]:
   print("Invalid selection. Please enter 1, 2, 3, or 4.")
   offense_choice = input("Select an option (1, 2, 3, or 4): ")
# Branching outcomes for offense
score = 0
offense_choice = int(offense_choice)
if offense_choice == 1:
   print(f"\nThe {team_name} execute a run play.")
   print("You gain 5 yards. It's second down and manageable.")
    score += 0
elif offense_choice == 2:
   print(f"\nThe {team_name} attempt a short pass.")
   print("You complete a pass for a first down!")
    score += 0
elif offense_choice == 3:
   print(f"\nThe {team_name} go for a deep pass.")
   print("It's caught! Touchdown!")
```

```
score += 7
else:
   print(f"\nThe {team_name} line up for a field goal.")
   print("The kick is good! 3 points on the board!")
   score += 3
# 3. Defensive strategy choice
print("\n=== Defensive Decision ===")
print("Now the opposing team has the ball. How will your defense line up?")
defensive_options = ["Zone Coverage", "Man-to-Man", "Blitz"]
# Show options
for i, option in enumerate(defensive_options, start=1):
   print(f"{i}) {option}")
defense_choice = input("Select your defensive strategy (1, 2, or 3): ")
while defense_choice not in ["1", "2", "3"]:
   print("Invalid selection. Please enter 1, 2, or 3.")
   defense_choice = input("Select your defensive strategy (1, 2, or 3): ")
defense_choice = int(defense_choice)
# Simple defensive outcome
opponent_score = 0
if defense_choice == 1:
   print("\nYou call Zone Coverage.")
   print("The other team struggles against zone and fails to convert.")
   opponent_score += 0
elif defense_choice == 2:
   print("\nYou call Man-to-Man defense.")
   print("They gain a few yards but stall. They settle for a field goal.")
   opponent_score += 3
else:
   print("\nYou go for an all-out Blitz.")
   print("Risky move! You sack the QB, but there's a big pass for a touchdown
on the next play.")
   opponent_score += 7
# 4. Halftime summary
print("\n=== Halftime Update ===")
print(f"Scoreboard: {team_name} {score} - Opponent {opponent_score}")
# 5. Second half (extra engagement)
print("\n=== Second Half Drive ===")
```

```
print("Your team is pushing down the field again. Make a critical call:")
print("1) A trick play (halfback pass)")
print("2) A standard run for yardage")
print("3) A safe field goal attempt to tie or extend the lead")
second_half_choice = input("Select your play (1, 2, or 3): ")
while second_half_choice not in ["1", "2", "3"]:
   print("Invalid selection. Please enter 1, 2, or 3.")
    second_half_choice = input("Select your play (1, 2, or 3): ")
second_half_choice = int(second_half_choice)
if second half choice == 1:
   print("\nThe trick play catches the defense off guard-touchdown!")
    score += 7
elif second_half_choice == 2:
   print("\nSolid run gains. You move the chains and eventually punch it in
for 6 points.")
   score += 6
else:
   print("\nYou settle for a field goal. 3 more points on the board.")
    score += 3
# Final Tally
print("\n=== Final Score Update ===")
print(f"{team_name}: {score} | Opponent: {opponent_score}")
if score > opponent_score:
   print(f"\nCongratulations! The {team_name} win!")
elif score < opponent_score:</pre>
   print(f"\nThe {team_name} fought hard, but the opponent wins.")
else:
   print(f"\nIt's a tie! What a close game!")
print("\nThank you for using the Madden NFL Play & Score Simulator!")
```





- 1 XBOX & PSN ACCOUNTS
- 2 MATCH GUIDE & GAME DOWNLOAD
- 3 MATCH CHAT

PART 1

CREATING A XBOX AND A PSN ACCOUNT

This guide will include steps on how to create your own Xbox and PSN accounts.

XBOX ACCOUNT CREATION GUIDE

CREATING YOUR ACCOUNT

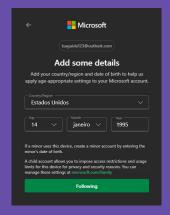
Open your web browser

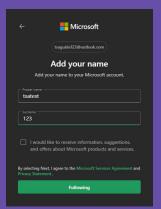
- Visit www.xbox.com
- b. Click "Sign In" on the top right corner
- c. Then click "Create an Account"
- d. Follow the steps until your account is created

If you already have an account, you can simply login into your account using your xbox console.









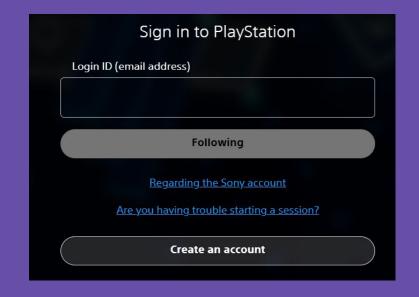
PSN ACCOUNT CREATION GUIDE

CREATING YOUR ACCOUNT

Open your web browser

- a. Visit www.http://playstation.com/
- b. Click "Sign In" on the top right corner
- c. Then click "Create an Account"
- d. Set up your country and preferred language
- e. Follow the steps until your account is created.

If you already have an account, you can simply login into your account using your playstation console.



PART 2

MADDEN 26 DOWNLOAD AND MATCH SET UP GUIDE

This guide will include match lobby setup and gameplay instructions for **MADDEN 26.**

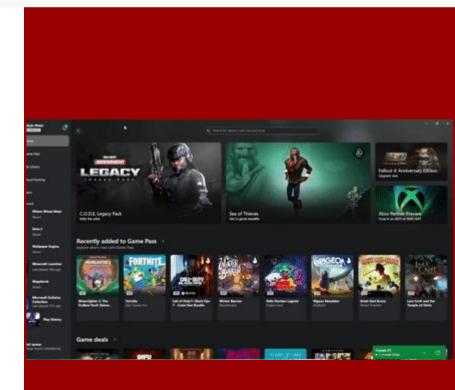
DOWNLOADING MADDEN 26 ON YOUR XBOX

XBOX LIVE SUBSCRIPTION

- a. You will need an active subscription in order to play Madden 26 online.
- You can either buy gift cards with monthly subscription periods, or subscribe directly from your Xbox store using your Xbox console.

Purchase the game

- c. Visit the **Xbox Store** and search for Madden 26.
- d. Select buy and proceed with the purchase.



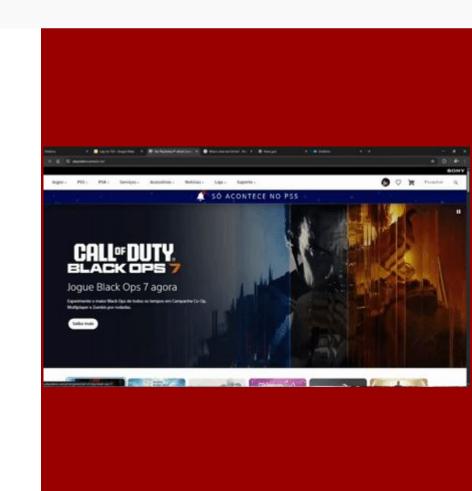
DOWNLOADING MADDEN 26 ON YOUR PLAYSTATION

1. PSN SUBSCRIPTION

- a. You will need an active subscription in order to play Madden 26 online.
- You can either buy gift cards with monthly subscription periods, or subscribe directly from your PSN store using your PLAYSTATION console.

2. Purchase the game

- a. Visit the **PSN STORE** and search for Madden 26.
- b. Select buy and proceed with the purchase.



INVITING PLAYERS TO A MATCH

AS A LOBBY HOST

1. Adding each other on EA PLAY

- Before being able to invite each other to a game, you should add your opponent to your EA PLAY Friend list.
- Use your match chat on the tournament platform to share your EA PLAY Username.

2. Create an Online Lobby

- a. From the main menu, select the Online **H2H** option
- b. Select **H2H Play a Friend** and then **Create Lobby**
- c. Adjust all the game settings following the tournament rules.
- Then from the friend list that will pop up, select the friend you want to play.



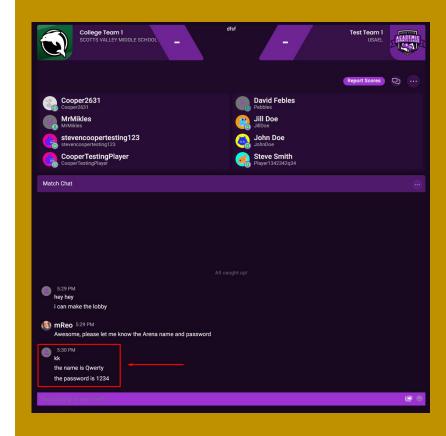
ORGANIZE IN MATCH CHAT

1. Wait for your Match Assignment

 If you're already registered for a tournament, check the **Schedule** to see when matches will be assigned

2. Join your Match Chat

- Once matches are assigned, go to the **Match** tab on the Tournament page to discuss match
 details with your opponents
- Generally, the main discussion point is who will be making the lobby



TIMELINE OVERVIEW

Dates	Description
Dec. 12, 2025	Last day to register a team
Jan. 20 - Feb. 13, 2026	Project submission window for Regionals
Feb. 27	Regional projects scored by this date
Jan. 31 - Feb. 1	Virtual Regional Esports Competition
March 27	Final Project Submission Deadline
April 3	State projects scored by this date
April 7	Final standings released for championship competition
April 9 & 10	State Competition Esports Live