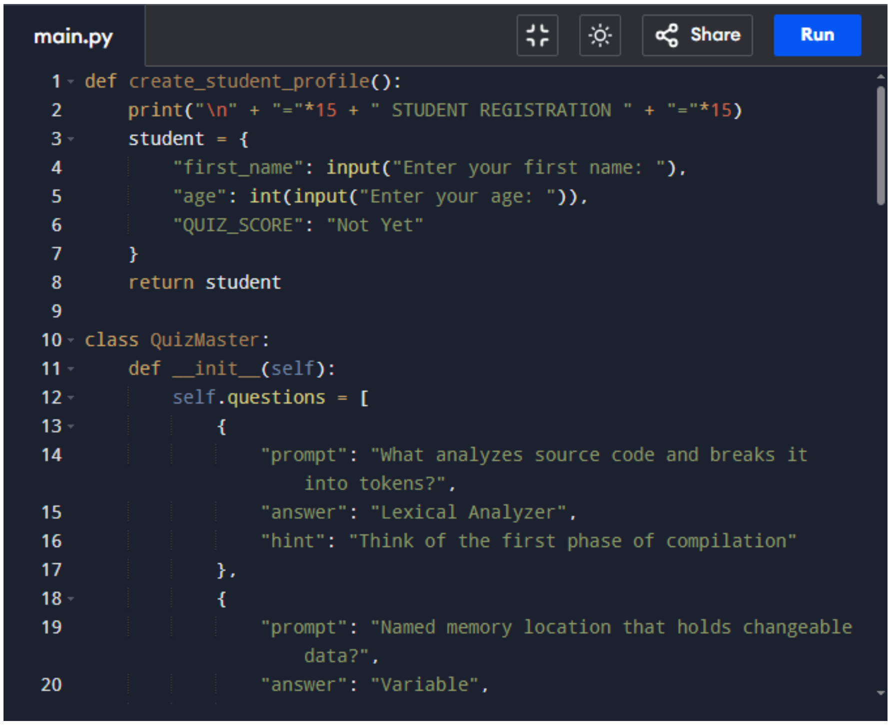
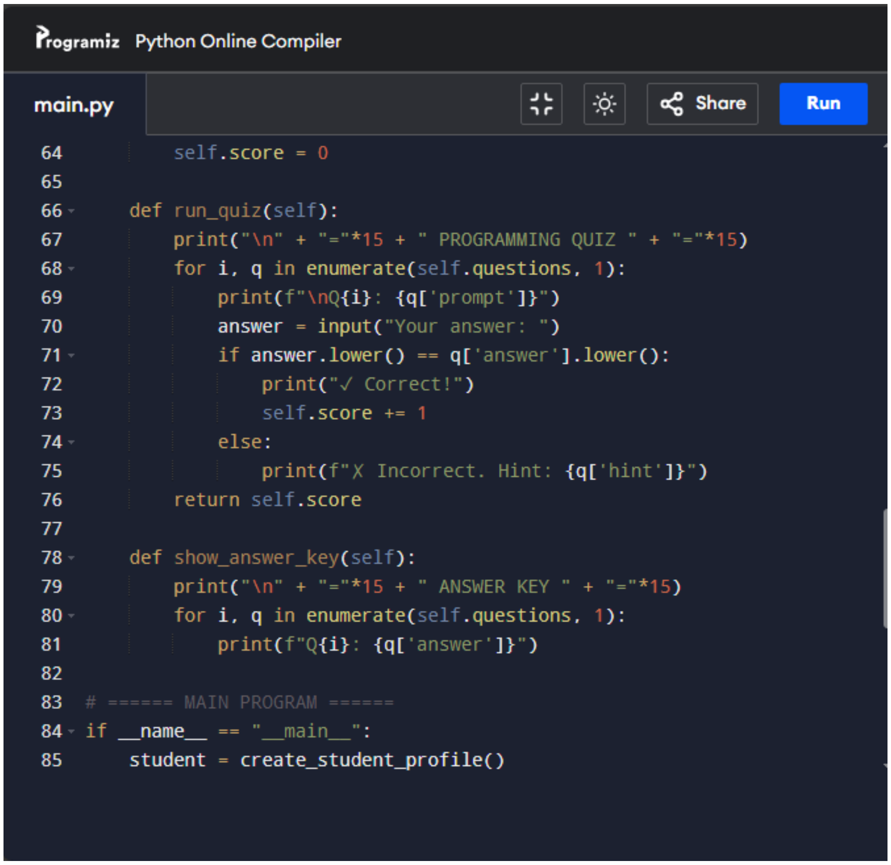
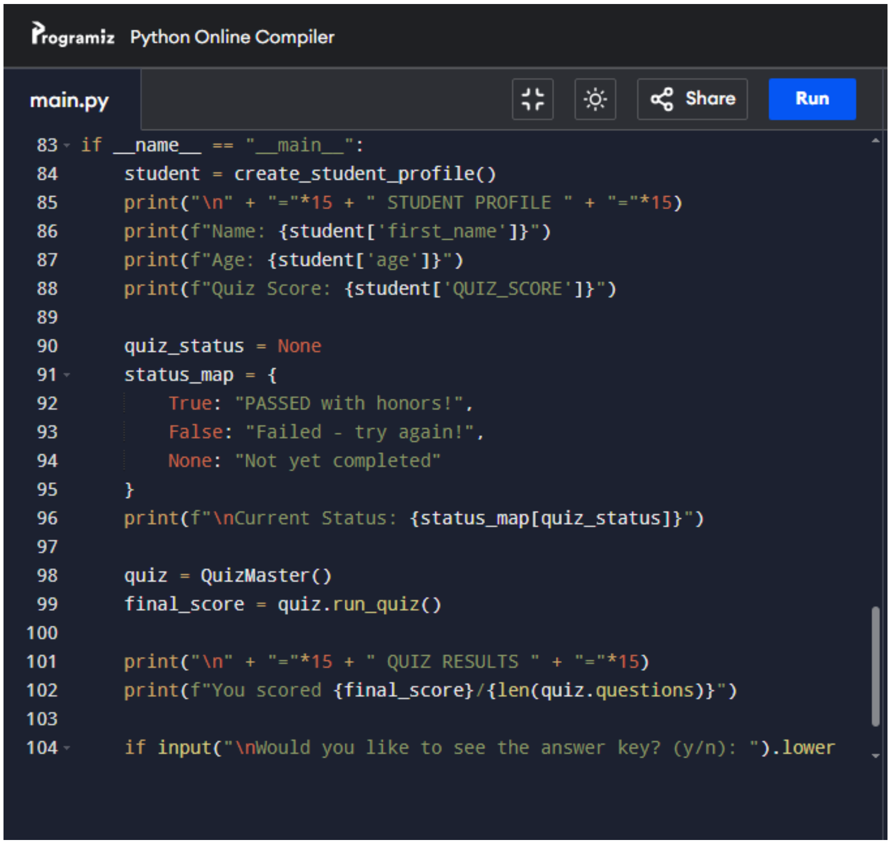
Code



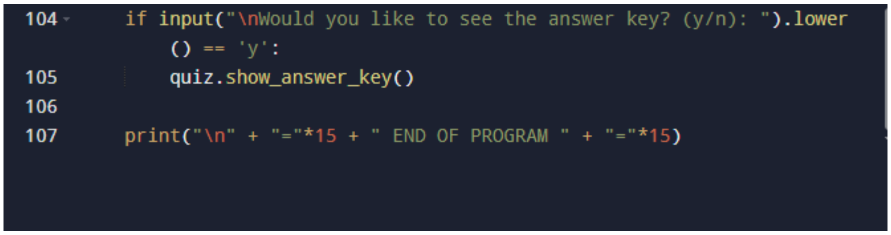
```python
def create_student_profile():
    print("\n" + "="*15 + " STUDENT REGISTRATION " + "="*15)
    student = {
        "first_name": input("Enter your first name: "),
        "age": int(input("Enter your age: ")),
        "QUIZ_SCORE": "Not Yet"
    }
    return student

class QuizMaster:
    def __init__(self):
        self.questions = [
            {
                "prompt": "What analyzes source code and breaks it into tokens?",
                "answer": "Lexical Analyzer",
                "hint": "Think of the first phase of compilation"
            },
            {
                "prompt": "Named memory location that holds changeable data?",
                "answer": "Variable",
```



```python
        self.score = 0

    def run_quiz(self):
        print("\n" + "="*15 + " PROGRAMMING QUIZ " + "="*15)
        for i, q in enumerate(self.questions, 1):
            print(f"\nQ{i}: {q['prompt']}")
            answer = input("Your answer: ")
            if answer.lower() == q['answer'].lower():
                print("✓ Correct!")
                self.score += 1
            else:
                print(f"✗ Incorrect. Hint: {q['hint']}")
        return self.score

    def show_answer_key(self):
        print("\n" + "="*15 + " ANSWER KEY " + "="*15)
        for i, q in enumerate(self.questions, 1):
            print(f"Q{i}: {q['answer']}")

# ====== MAIN PROGRAM ======
if __name__ == "__main__":
    student = create_student_profile()
```

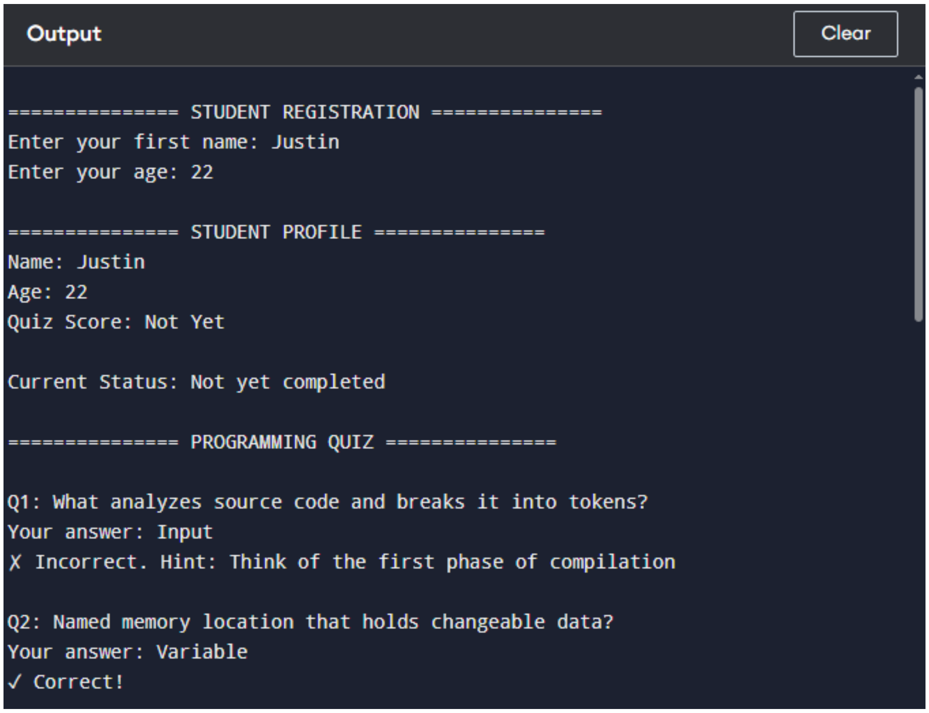


```python
if __name__ == "__main__":
    student = create_student_profile()
    print("\n" + "="*15 + " STUDENT PROFILE " + "="*15)
    print(f"Name: {student['first_name']}")
    print(f"Age: {student['age']}")
    print(f"Quiz Score: {student['QUIZ_SCORE']}")

    quiz_status = None
    status_map = {
        True: "PASSED with honors!",
        False: "Failed - try again!",
        None: "Not yet completed"
    }
    print(f"\nCurrent Status: {status_map[quiz_status]}")

    quiz = QuizMaster()
    final_score = quiz.run_quiz()

    print("\n" + "="*15 + " QUIZ RESULTS " + "="*15)
    print(f"You scored {final_score}/{len(quiz.questions)}")

    if input("\nWould you like to see the answer key? (y/n): ").lower
```

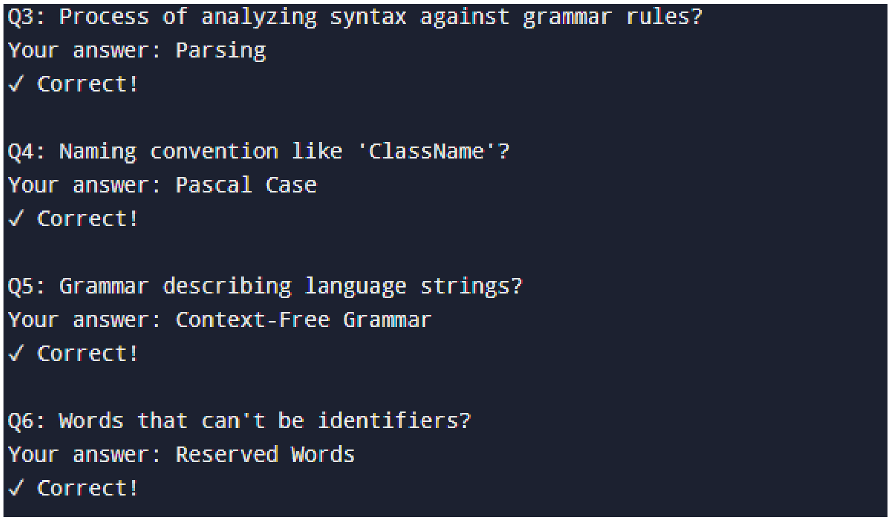


```python
    if input("\nWould you like to see the answer key? (y/n): ").lower
        () == 'y':
        quiz.show_answer_key()

    print("\n" + "="*15 + " END OF PROGRAM " + "="*15)
```

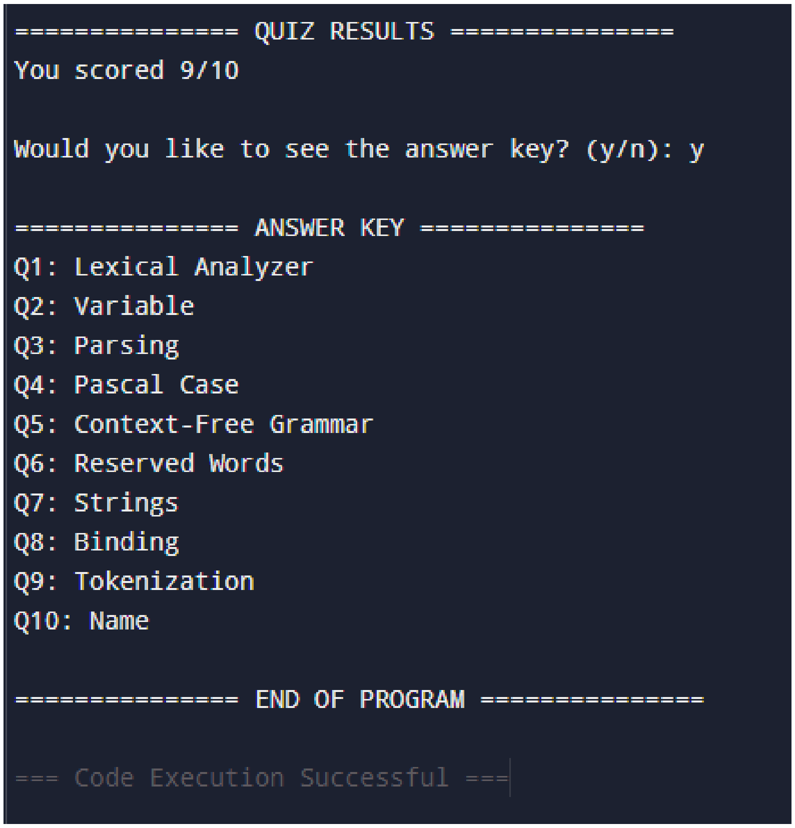
Output



```
=============== STUDENT REGISTRATION ===============
Enter your first name: Justin
Enter your age: 22

=============== STUDENT PROFILE ===============
Name: Justin
Age: 22
Quiz Score: Not Yet

Current Status: Not yet completed

=============== PROGRAMMING QUIZ ===============

Q1: What analyzes source code and breaks it into tokens?
Your answer: Input
✗ Incorrect. Hint: Think of the first phase of compilation

Q2: Named memory location that holds changeable data?
Your answer: Variable
✓ Correct!
```



```
Q3: Process of analyzing syntax against grammar rules?
Your answer: Parsing
✓ Correct!

Q4: Naming convention like 'ClassName'?
Your answer: Pascal Case
✓ Correct!

Q5: Grammar describing language strings?
Your answer: Context-Free Grammar
✓ Correct!

Q6: Words that can't be identifiers?
Your answer: Reserved Words
✓ Correct!
```



```
=============== QUIZ RESULTS ===============
You scored 9/10

Would you like to see the answer key? (y/n): y

=============== ANSWER KEY ===============
Q1: Lexical Analyzer
Q2: Variable
Q3: Parsing
Q4: Pascal Case
Q5: Context-Free Grammar
Q6: Reserved Words
Q7: Strings
Q8: Binding
Q9: Tokenization
Q10: Name

=============== END OF PROGRAM ===============

=== Code Execution Successful ===
```