

Centre Name:

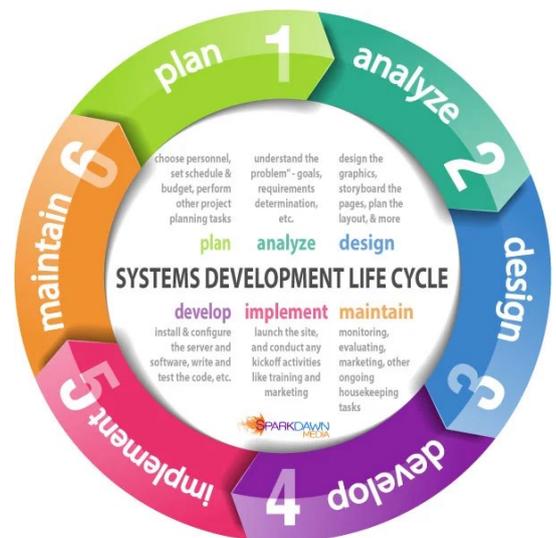
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# Task completed:

Date started	Date completed
10/02/20	

## INTRODUCTION

I am doing a 20-hour programming project and I have chosen Task 1 in this project I am asked to create music game. In this game the player's input should be authenticated to ensure that they are an authorised player. Then song names are inputted to the program and the first letter of every word in the song and the artist is displayed then the player has to guess the song name in two guesses. If the guess is correct on the first try 3 points are added to the players score if it is guessed correct on the second time one point is added to their score if they guess it incorrectly on the second try the game ends, game then repeats. The player score is displayed at the end of the game.



I am going to split the program up into sections. Section 1 will be a username and password verification to make sure they are an authorised player. Section 2 will be displaying the song name and the artist and section 3 will be to print out their final score.

To execute my project, I have used the system development cycle, and this is used every day by programmers. I designed a flowchart and made pseudocode to help me implement my python code. In order to check when I executed it if it worked, I had to test several times and evaluate the changes I need to make to my code to make it run smoothly.

What are system development life cycle stages?

Systems development life cycle phases include planning, system analysis, system design, development, implementation, integration and testing, and operations and maintenance.

Picture - <https://bndsbon.wordpress.com/2017/02/27/system-development-life-cycle-sdlc/>

## Analysis

Try and create 3 or more key success criteria for your program.

**Success Criteria:**

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1. Testing program frequently as it is being made.
2. Feedback from clients is positive.
3. Meet the brief.

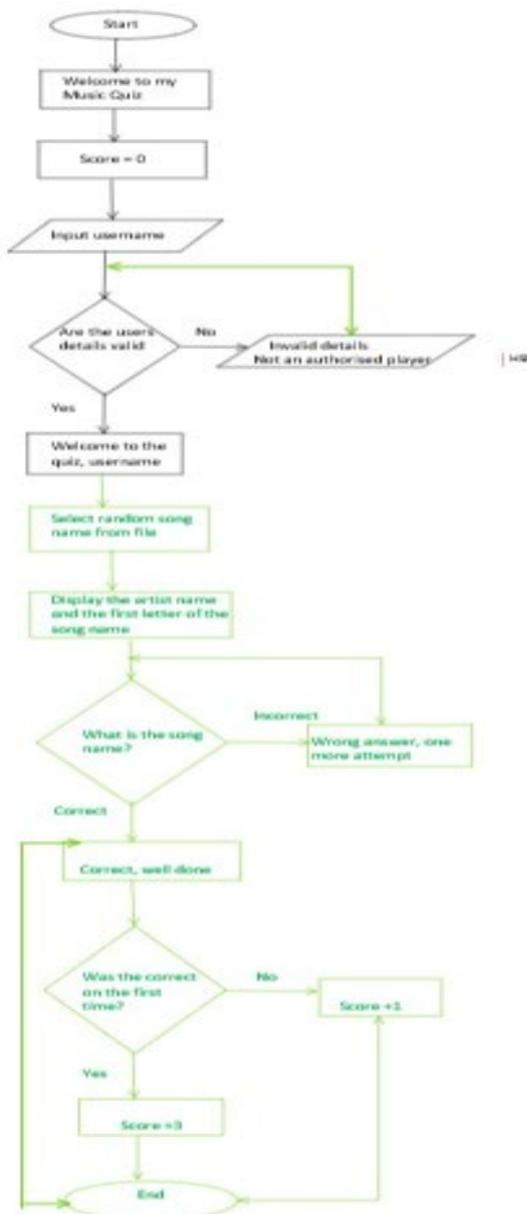
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### Design

- ✓ You may like to create a flow charts which will show broadly how your program will work. If so, include your flow chart in this section.
- ✓ You must create pseudocode for a part of your program (minimum of 15 lines). If possible, try to create all of your program in pseudocode. Use the OCR guide in the specification to help you.



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**What is pseudocode?**

Pseudocode is an informal way of programming description that does not require any strict programming language syntax or underlying technology considerations. It is used for creating an outline or a rough draft of a program. Pseudocode summarizes a program's flow but excludes underlying details.

**PSEUDOCODE:**

INPUT enter username

INPUT enter password

IF password = "correct password"

    OUTPUT "Hello welcome to my music quiz where you will be guessing the song name an given the artist and first letter of each word in the song title. However, you are only given two chances to get the correct answer"

Else

OUTPUT "incorrect password or username try again"

INPUT enter username

INPUT enter password

IF incorrect not an authorised player

# info will be imputed into the program

INPUT enter song name

MAX COUNT = 2

IF song\_name = correct\_songname AND count = 0

points = points + 3

IF song\_name = incorrect\_songname AND count = 0

guesscount = guesscount + 1

INPUT enter song name

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IF song\_name = Correct\_songname AND count = 1

points = points + 1

Else

OUTPUT points + "the top scores are" + top scores

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**Test design**

- ✓ *Think of tests that you can carry out to see if your system works*
- ✓ *Remember to try and use normal, boundary and erroneous tests.*
- ✓ *If you wish to, you may add more tests to the table.*

**My tests:**

Test	What am I testing?	What data will I use?	Normal/Boundary/Erroneous?	Expected Result
1	Authorising the username/password	<pre> for i in range (3, 0, -1):     attempt = input     ("Please enter your     username")     if attempt ==     username:         break     else:         print ("Incorrect -         try again!") if i == 1:     print("You have     been denied access </pre>	<p>Normal</p> <p>This is a normal test because the code works and has been authorised.</p>	Print you have been denied access as you are not an authorised player after 3 tries of entering the incorrect username.

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		as you are not an authorised player.") quit ()		
<b>2</b>	Password verification		Erroneous	Print you have been denied access as you are not an authorised player after 3 tries of entering the incorrect username.
<b>3</b>	Test song names with lowercase letters	song1 = "Thriller" artist1 = "Micheal Jackson"	Boundary	
<b>4</b>				
<b>5</b>				

White box and black box testing

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## Development

- ✓ Copy and paste your code into this section
- ✓ Remember to try and add comments to your code to make it more readable!

### My program code:

```
print ("Welcome to my music quiz")
score=0 #sets score to 0
name = input ("Plase enter your name: ")

username = "music" #set a username

for i in range (3, 0, -1):#colon shoews start of loop/block of code
# This range is to allow only 3 uses or chances to enter a password.
    attempt = input ("Please enter your username ")#attempt is a variable whatever they type in will be scored in this variable
    if attempt == username: #checking if attempt matches username
        break #if attempt matches username the loop is broken
    else:
        print ("Incorrect - try again!")
if i == 0:
    print("You have been denied access as you are not an authorised player.")
    quit()

password = "game" #sets a password

for i in range (3, 0, -1):
# This range is to allow only 3 uses or chances to enter a password.
    attempt = input ("Please enter your password ")
    if attempt == password:
        break
    else:
        print ("Incorrect - try again!")

if i == 0:
    print ("You have been denied access as you are not an authorised player.")
    quit()
else:
    print("You are now logged in")
    print ("Hello",name, "this is a music quiz game. The artist and first letter of each word in the song title is displayed and you have to guess the song.")

artist1 = 'Micheal Jackson'
song1 = 'Thriller' #sets song1
guess = ""
guess_count = 0 #sets guess count to zero - variable
guess_limit = 2 #only allows the player two guesses
out_of_guesses = False

question1 = print("Q1) The name of this artist is",artist1,"the first letter of first word is",song1[0][0]) #string index to print out first letter song name
```

This is the first part of my code where the program will verify the username and then password to make sure they are an authorized player and it only allows them three chances to get it correct.

```
while guess!= song1 and not (out_of_guesses):
    if guess_count < guess_limit:
        guess = input ("Enter guess ")#if the players number of guesses is less than the guess limit it allows the player to Enter another guess
        guess_count +=1 #once player has guessed it adds one to the guess count
    else:
        out_of_guesses = True
if out_of_guesses:
    print("You have no guesses left")
    print("Your final score is",score)
    quit()#ends the game if guessed wrong on second try
if guess_count == 1:
    score = score+3 #adds three points to players score if guessed correctly on first time
    print("Correct, your score is", score)
if guess_count == 2:
    score = score+1 #adds one to players score if guessed correctly on second time
    print("Correct, your score is", score)

artist2 = 'BTS'
song2 = 'Idol'
guess = ""
guess_count = 0
guess_limit = 2
out_of_guesses = False

question2 = print("Q2) The name of this artist is",artist2,"the first letter of in the song is",song2[0][0],"Guess the song name")

while guess!= song2 and not (out_of_guesses):
    if guess_count < guess_limit:
        guess = input ("Enter guess, (Capital Letters For Names) ")
        guess_count +=1
    else:
        out_of_guesses = True
if out_of_guesses:
    print("You have no guesses left!")
    print("Your final score is",score)
    quit()
if guess_count == 1:
    score = score+3
    print("Correct, your score is", score)
if guess_count == 2:
    score = score+1
    print("Correct, your score is", score)
```

This is the second section of my code where it displays the song name and artist and allows the player three chances to get the answer correct and I have made a loop so if they get it correct on their first try three points will be added to their score but if they get it correct on the second time it adds 1 point to their score. If they get it incorrect on the second try the game ends and prints their final score.

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artist3 = 'Ariana Grande'
song3 = 'Positions'
guess = ""
guess_count = 0
guess_limit = 2
out_of_guesses = False

question3 = print("Q3) The name of this artist is",artist3,"the first letter of the song name is",song3[0][0],"Guesss the song name")

while guess!= song3 and not (out_of_guesses):
    if guess_count < guess_limit:
        guess = input ("Enter guess ")
        guess_count +=1
    else:
        out_of_guesses = True
if out_of_guesses:
    print("You have no guesses left!")
    print("Your final score is",score)
    quit()
if guess_count == 1:
    score = score+3
    print("Correct, your score is", score)
if guess_count == 2:
    score = score+1
    print("Correct, your score is", score)

artist4 = 'Phrallel Williams'
song4 = 'Happy'
guess = ""
guess_count = 0
guess_limit = 2
out_of_guesses = False

question3 = print("Q4) The name of this artist is",artist4,"the first letter of the song name is",song4[0][0],"Guesss the song name")

while guess!= song4 and not (out_of_guesses):
    if guess_count < guess_limit:
        guess = input ("Enter guess ")
        guess_count +=1
    else:
        out_of_guesses = True
if out_of_guesses:

```

**Result:**

```

Please enter your password game
You are now logged in
Hello Sarah this is a music quiz game. The artist and first letter of each word in the song title is displayed and you have to guess the song. However, you
are only given two chances to get the correct answer, hope you enjoy the quiz
Q1) The name of this artist is Micheal Jackson the first letter of first word is T
Capital Letters for song names
Enter guess Thriller
Correct, your score is 3
Q2) The name of this artist is BTS the first letter of in the song is I Guesss the song name
Enter guess, (Capital Letters For Names) Idol
Correct, your score is 6
Q3) The name of this artist is Ariana Grande the first letter of the song name is P Guesss the song name
Enter guess Positions
Correct, your score is 9
Q4) The name of this artist is Phrallel Williams the first letter of the song name is H Guesss the song name
Enter guess Happy
Correct, your score is 12
Q5) The name of this artist is Lil Nas X the first letter of the song name is O the first letter of second word of the song name is T the first letter of th
ird word of the song name is R Guesss the song name
Enter guess Old Town Road
Correct, your score is 15
Q6) The name of this artist is Lewis Capaldi the first letter of the song name is S the first letter of second word of the song name is Y the first letter o
f third word of the song name is L Guesss the song name
Enter guess Someone You Loved
Correct, your score is 18
Q7) The name of this artist is Marshmellow the first letter of the song name is H Guesss the song name
Enter guess Happier
Correct, your score is 21
Q8) The name of this artist is Childish Gambino the first letter of the song name is T the first letter of second word of the song name is I the first lette
r of third word of the song name is A Guesss the song name
Enter guess This Is America
Correct, your score is 24
Q9) The name of this artist is Billie Ellish the first letter of the song name is B the first letter of second word of the song name is G Guesss the song na
me
Enter guess Bad Guy
Correct, your score is 27
Q10) The name of this artists is Mark Robson ft. Bruno Mars the first letter of the song name is U the first letter of second word of the song name is F Gue
sss the song name
Enter guess Uptown Funk
Correct, your score is 30 out of 30
Thank you for playing my music quiz
>>>

```

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**Username and Password in external file verification:**

```
import csv

def main():
    with open ("users.txt","r") as file:
        file_reader = csv.reader (file)
        user_find(file_reader)
        file.close()

def user_find(file):
    user = input("Enter your username: ")
    for row in file:
        if row[0] == user:
            print("username found", user)
            user_found =[row[0],row[1]]
            pass_check (user_found)
            break
        else:
            print("not found")

def pass_check (user_found):
    user = input ("Enter your password: ")
    if user_found [1] == user:
        print ("Password match")
    else:
        print("Password does not match")

main()
```

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**Testing**

- ✓ *Show you have completed the tests you thought of*
- ✓ *Identify if you needed to make changes to your program*
- ✓ *Include the screenshots of the tests*

**My tests:**

Test	What am I testing?	Expected result	Pass/Fail	Do I need to change my program? If so, how?
1	username verification	Verify the username	Pass	No
2	Password verification	Verify the password	Pass	No
3	Song Name	Check if the user has added the correct song name	Pass	No
4	Adding to the players scores correctly	Add +3 to players score if correct on first time +1 to player score if on second time	Fail	Add If statements

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5	Spaces before answers to make code more readable	Add spaces before user enters the answer	Pass	No
---	--	--	------	----

### My test screenshots:

#### Username Verification

```
*IDLE Shell 3.8.8*
File Edit Shell Debug Options Window Help
Python 3.8.8 (tags/v3.8.8:024d805, Feb 2020) [AMD64]
Type "help", "copyright", "credits" or
>>>
=====
Welcome to my music quiz
Please enter your name: Sarah
Please enter your username music
Please enter your password
```

#### Password Verification

```
*IDLE Shell 3.8.8*
File Edit Shell Debug Options Window Help
Python 3.8.8 (tags/v3.8.8:024d805, Feb 2020) [AMD64]
Type "help", "copyright", "credits"
>>>
=====
Welcome to my music quiz
Please enter your name: Sarah
Please enter your username music
Please enter your password game
You are now logged in
```

Adding +3 if correct on first try and +1 if correct on second try.

```
Welcome to my music quiz
Please enter your name: Sarah
Please enter your username music
Please enter your password game
You are now logged in
Hello Sarah this is a music quiz game. The artist and first letter of each word in the song title is displayed and you have to guess the song. However, you are only given two chances to get the correct answer, hope you enjoy the quiz
Q1) The name of this artist is Micheal Jackson the first letter of first word is T
Capital Letters for song names
Enter guess Thriller
Correct, your score is 3
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```

Adding +3 to the score if correct on the first guess.

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```

Python 3.8.8 (tags/v3.8.8:024d805, Feb 19 2021, 13:18:16) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\sarah.adeola\Downloads\Programming Project Music Quiz Code.py
Welcome to my music quiz
Please enter your name: Sarah
Please enter your username music
Please enter your password game
You are now logged in
Hello Sarah this is a music quiz game. The artist and first letter of each word in the song title is displayed and you have to guess the song. However, you
are only given two chances to get the correct answer, hope you enjoy the quiz
Q1) The name of this artist is Micheal Jackson the first letter of first word is T
Capital Letters for song names
Enter guess Thrill
Enter guess Thriller
Correct, your score is 1

```

Adding +1 to the score if correct  
on the second guess.

### Song name verification

```

Welcome to my music quiz
Please enter your name: Sarah
Please enter your username music
Please enter your password game
You are now logged in
Hello Sarah this is a music quiz game. The artist and first letter of each word in the song title is displayed and you have to guess the song. However, you
are only given two chances to get the correct answer, hope you enjoy the quiz
Q1) The name of this artist is Micheal Jackson the first letter of first word is T
Capital Letters for song names
Enter guess Thriller
Correct, your score is 3

```

Prints 'Correct'

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**Evaluation**

- ✓ Evaluate how successful your program was. You should like your evaluation to your testing results.
- ✓ You should reflect on any new skills you have developed

**This section should be approximately 200-500 words.**

**How successful was my program?**

Overall my program was successful as it meets the requirements in Task 1 because it asks for the song name while displaying the first letter of each word in the song name and the artist and stores it temporarily in the variable 'guess'. The programme consists of 10 music questions which are made based on the songs inputted into the program. The program ends if song name guessed incorrectly on the second time if It is guessed correctly on the first time the player is awarded 3 points for each correct answer, although if guessed correctly on the second time the player is awarded 1 point. The score that the player gets for all the correct answers is displayed on screen displaying the game has ended and prints thank you for playing. This shows the code was able to function properly, allowing the game to be played to the end of the script.

```
print("Correct, You have finished and scored", score, " out of 30")
# 'score' tells them how many correct answers they got out of maximim points they could get
print("Thank you for playing my music quiz")
```

```
Correct, your score is 26 out of 30
Thank you for playing my music quiz
```

**What new skills have I developed?**

Working on this project has really improved my coding skills and my confidence in coding. I have learnt to link text files to my code for users and passwords. Lasty, I learnt how to make pseudocode, why it is used, and how to use it. One key thing I have gained from this project is a better understanding of programming concepts. By completing my coursework, I have developed a lot of skills such as problem solving and being able to use decomposition while coding and finding a way around errors it my code, by either researching where I have gone wrong and seeing if there were any videos online to help me.

**I have learnt how to put computational thinking into practice and problem solve...**

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GCSE (9–1)

# COMPUTER SCIENCE

## J276 Programming Project Report

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