***BT20CSE212 AYUSH PRATAP SINGH***

***GROUP-7***

***Question-13 Musical Composition***

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Q13. Create a class named MusicalComposition that contains fields for title, composer, and year written. Include a constructor that requires all three values and an

appropriate display function. The child class NationalAnthem contains an additional

field that holds the name of the anthem's nation. The child class constructor requires a

value for this additional field. The child class also contains a display function. Write a

main() function that instantiates objects of each class and demonstrates that the

functions work correctly.

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#include <bits/stdc++.h>

#include <algorithm>

#include <iostream>

using namespace std;

const char nl = '\n';

class MusicalComposition

{

protected:

string compTitle;

string composer;

int yearWritten;

public:

MusicalComposition(string, string, int);

void showMusicalComposition();

};

MusicalComposition::MusicalComposition(string title, string cmpsr, int year)

{

compTitle = title;

composer = cmpsr;

yearWritten = year;

}

void MusicalComposition::showMusicalComposition()

{

cout << "Title: " << compTitle << nl;

cout << "Composer: " << composer << nl;

cout << "Year: " << yearWritten << nl;

cout << nl;

}

class NationalAnthem : public MusicalComposition

{

string nation;

public:

NationalAnthem(string title, string cmpsr, int year, string country) : MusicalComposition(title, cmpsr, year)

{

nation = country;

}

void showMusicalComposition();

};

void NationalAnthem::showMusicalComposition()

{

cout << "Title: " << compTitle << nl;

cout << "Composer: " << composer << nl;

cout << "Year: " << yearWritten << nl;

cout << "Nation: " << nation << nl;

cout << nl;

}

int main()

{

MusicalComposition ayush\_01("Gasolina", "Lois Fonsi", 2020);

MusicalComposition ayush\_02("Taki-Taki", "DJ-Snake", 2019);

NationalAnthem anthem("Jana Gana Mana", "Rabindranath Tagore", 1950, "India");

ayush\_01.showMusicalComposition();

ayush\_02.showMusicalComposition();

anthem.showMusicalComposition();

return 0;

}

//this code is written by Ayush Pratap Singh

//BT20CSE212

OUTPUT—

PS D:\CPP> cd "d:\CPP\" ; if ($?) { g++ oopslab1.cpp -o oopslab1 } ; if ($?) { .\oopslab1 }

Title: Gasolina

Composer: Lois Fonsi

Year: 2020

Title: Taki-Taki

Composer: DJ-Snake

Year: 2019

Title: Jana Gana Mana

Composer: Rabindranath Tagore

Year: 1950

Nation: India

