# Example 1:

#include <iostream>

using namespace std;

// Create Frog class as parent

class FrogMessage

{

public:

float priceOfMessage = 0.0;

// Contructors

FrogMessage() {}

// Methods

float getPriceOfMessage()

{

return priceOfMessage;

}

void setPriceOfMessage(float price)

{

priceOfMessage = price;

}

};

// Create voicemessage class and inherit from Frogmessage class

class VoiceMessage : public FrogMessage

{

float lengthInMinutes;

const float COSTPERMINUTE = .11f;

public:

// Contructors

VoiceMessage() {}

// Methods

float getLengthOfVoiceMessage()

{

return priceOfMessage;

}

void setLengthOfVoiceMessage(float length)

{

lengthInMinutes = length;

priceOfMessage = lengthInMinutes \* COSTPERMINUTE;

setPriceOfMessage(priceOfMessage);

}

void getPriceOfMessage()

{

cout << "Price of Voice message: $" << priceOfMessage << endl;

}

};

// Create textmessage class and inherit from Frogmessage class

class TextMessage : public FrogMessage

{

// Properties

int numOfCharacters;

const float COSTPERCHARACTER = .08f;

public:

// Contructors

TextMessage() {}

// Methods

float getLengthOfTextMessage()

{

return priceOfMessage;

}

void setLengthOfTextMessage(int length)

{

numOfCharacters = length;

priceOfMessage = numOfCharacters \* COSTPERCHARACTER;

setPriceOfMessage(priceOfMessage);

}

void getPriceOfMessage()

{

cout << "Price of Text message: $" << priceOfMessage << endl;

}

};

int main()

{

// create new instances of objects

VoiceMessage newVoicemessage;

TextMessage newTextMessage;

// assign specified values

newVoicemessage.setLengthOfVoiceMessage(8);

newTextMessage.setLengthOfTextMessage(12);

newVoicemessage.getPriceOfMessage();

newTextMessage.getPriceOfMessage();

}

