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#pragma once
#include "hmmModelling.h"

namespace SessionFinal {

    using namespace System;
    using namespace System::ComponentModel;
    using namespace System::Collections;
    using namespace System::Windows::Forms;
    using namespace System::Data;
    using namespace System::Drawing;
    using namespace System::Speech;
    using namespace System::Speech::Synthesis;
    /// <summary>
    /// Summary for Training
    /// </summary>
    public ref class Training : public System::Windows::Forms::Form
    {
    public:
        Training(void)
        {
            InitializeComponent();
            //
            //TODO: Add the constructor code here
            //
        }

    protected:
        /// <summary>
        /// Clean up any resources being used.
        /// </summary>
        ~Training()
        {
            if (components)
            {
                delete components;
            }
        }

    private: System::Windows::Forms::Label^ label1;
    private: System::Windows::Forms::Label^ label2;

    private: System::Windows::Forms::Button^ button1;
    private: System::Windows::Forms::ListView^ listView1;
    private: System::Windows::Forms::ColumnHeader^ columnHeader1;
    private: System::Windows::Forms::ColumnHeader^ columnHeader2;
    private: System::Windows::Forms::TextBox^ word;
    private: System::Windows::Forms::PictureBox^ pictureBox2;
    private: System::Windows::Forms::TextBox^ dir;
    private: System::Windows::Forms::Label^ error;
    public protected: System::Windows::Forms::Label^ msg;
    private: System::Windows::Forms::Button^ exit;
    public protected:
    private:

    private:
    protected:

    private:
        /// <summary>

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    /// Required designer variable.
    /// </summary>
    System::ComponentModel::Container ^components;

#pragma region Windows Form Designer generated code
    /// <summary>
    /// Required method for Designer support - do not modify
    /// the contents of this method with the code editor.
    /// </summary>
    void InitializeComponent(void)
    {
        System::Windows::Forms::ListViewGroup^ listViewGroup1 = (gcnew
System::Windows::Forms::ListViewGroup(L"Words", System::Windows::Forms::HorizontalAlignment::Left));
        System::Windows::Forms::ListViewGroup^ listViewGroup2 = (gcnew
System::Windows::Forms::ListViewGroup(L"ListViewGroup",
System::Windows::Forms::HorizontalAlignment::Left));
        System::Windows::Forms::ListViewItem^ listViewItem1 = (gcnew
System::Windows::Forms::ListViewItem(gcnew cli::array< System::String^ >(2) {L"CAR",
L"CAR"}, -1));
        System::Windows::Forms::ListViewItem^ listViewItem2 = (gcnew
System::Windows::Forms::ListViewItem(gcnew cli::array< System::String^ >(2) {L"LAPTOP",
L"LAPTOP"}, -1));
        System::Windows::Forms::ListViewItem^ listViewItem3 = (gcnew
System::Windows::Forms::ListViewItem(gcnew cli::array< System::String^ >(2) {L"THREE",
L"THREE"}, -1));
        System::ComponentModel::ComponentResourceManager^ resources = (gcnew
System::ComponentModel::ComponentResourceManager(Training::typeid));
        this->label1 = (gcnew System::Windows::Forms::Label());
        this->label2 = (gcnew System::Windows::Forms::Label());
        this->button1 = (gcnew System::Windows::Forms::Button());
        this->listView1 = (gcnew System::Windows::Forms::ListView());
        this->columnHeader1 = (gcnew System::Windows::Forms::ColumnHeader());
        this->columnHeader2 = (gcnew System::Windows::Forms::ColumnHeader());
        this->word = (gcnew System::Windows::Forms::TextBox());
        this->pictureBox2 = (gcnew System::Windows::Forms::PictureBox());
        this->dir = (gcnew System::Windows::Forms::TextBox());
        this->error = (gcnew System::Windows::Forms::Label());
        this->msg = (gcnew System::Windows::Forms::Label());
        this->exit = (gcnew System::Windows::Forms::Button());
        (cli::safe_cast<System::ComponentModel::ISupportInitialize^ >(this-
>pictureBox2))->BeginInit();
        this->SuspendLayout();
        //
        // label1
        //
        this->label1->AutoSize = true;
        this->label1->Font = (gcnew System::Drawing::Font(L"Microsoft Sans Serif",
12, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,
static_cast<System::Byte>(0)));
        this->label1->Location = System::Drawing::Point(911, 282);
        this->label1->Name = L"label1";
        this->label1->Size = System::Drawing::Size(75, 29);
        this->label1->TabIndex = 1;
        this->label1->Text = L"Word";
        //
        // label2
        //
        this->label2->AutoSize = true;
        this->label2->Font = (gcnew System::Drawing::Font(L"Microsoft Sans Serif",
12, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,
static_cast<System::Byte>(0)));
        this->label2->Location = System::Drawing::Point(911, 408);
        this->label2->Name = L"label2";
        this->label2->Size = System::Drawing::Size(118, 29);
        this->label2->TabIndex = 2;
    }

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        this->label2->Text = L"Directory";
        //
        // button1
        //
        this->button1->Font = (gcnew System::Drawing::Font(L"Microsoft Sans Serif",
12, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,
            static_cast<System::Byte>(0)));
        this->button1->Location = System::Drawing::Point(1146, 543);
        this->button1->Name = L"button1";
        this->button1->Size = System::Drawing::Size(116, 43);
        this->button1->TabIndex = 4;
        this->button1->Text = L"Train";
        this->button1->UseVisualStyleBackColor = true;
        this->button1->Click += gcnew System::EventHandler(this,
&Training::button1_Click);
        //
        // listView1
        //
        this->listView1->BackColor = System::Drawing::SystemColors::InactiveCaption;
        this->listView1->BorderStyle = System::Windows::Forms::BorderStyle::None;
        this->listView1->Columns->AddRange(gcnew cli::array<
System::Windows::Forms::ColumnHeader^ >(2) {this->columnHeader1, this->columnHeader2});
        this->listView1->Font = (gcnew System::Drawing::Font(L"Microsoft Sans Serif",
12, System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,
            static_cast<System::Byte>(0)));
        listViewGroup1->Header = L"Words";
        listViewGroup1->Name = L"listViewGroup1";
        listViewGroup2->Header = L"ListViewGroup";
        listViewGroup2->Name = L"listViewGroup2";
        listViewGroup2->Tag = L"grp2";
        this->listView1->Groups->AddRange(gcnew cli::array<
System::Windows::Forms::ListViewGroup^ >(2) {listViewGroup1, listViewGroup2});
        listViewItem1->IndentCount = 2;
        listViewItem1->StateImageIndex = 0;
        listViewItem2->StateImageIndex = 0;
        listViewItem3->StateImageIndex = 0;
        this->listView1->Items->AddRange(gcnew cli::array<
System::Windows::Forms::ListViewItem^ >(3) {listViewItem1, listViewItem2,
            listViewItem3});
        this->listView1->Location = System::Drawing::Point(1371, 195);
        this->listView1->Name = L"listView1";
        this->listView1->Size = System::Drawing::Size(428, 363);
        this->listView1->TabIndex = 5;
        this->listView1->UseCompatibleStateImageBehavior = false;
        this->listView1->View = System::Windows::Forms::View::Details;
        //
        // columnHeader1
        //
        this->columnHeader1->Text = L"Words";
        this->columnHeader1->Width = 176;
        //
        // columnHeader2
        //
        this->columnHeader2->Text = L"Directory";
        this->columnHeader2->Width = 179;
        //
        // word
        //
        this->word->Location = System::Drawing::Point(1146, 282);
        this->word->Name = L"word";
        this->word->Size = System::Drawing::Size(100, 26);
        this->word->TabIndex = 6;
        //
        // pictureBox2
        //

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        this->pictureBox2->BackColor = System::Drawing::Color::PaleTurquoise;
        this->pictureBox2->BackgroundImage = (cli::safe_cast<System::Drawing::Image^
>(resources->GetObject(L"pictureBox2.BackgroundImage")));
        this->pictureBox2->BackgroundImageLayout =
System::Windows::Forms::ImageLayout::Stretch;
        this->pictureBox2->Location = System::Drawing::Point(1761, 12);
        this->pictureBox2->Name = L"pictureBox2";
        this->pictureBox2->Size = System::Drawing::Size(134, 113);
        this->pictureBox2->TabIndex = 9;
        this->pictureBox2->TabStop = false;
        //
        // dir
        //
        this->dir->Location = System::Drawing::Point(1146, 408);
        this->dir->Name = L"dir";
        this->dir->Size = System::Drawing::Size(100, 26);
        this->dir->TabIndex = 10;
        //
        // error
        //
        this->error->AutoSize = true;
        this->error->Font = (gcnew System::Drawing::Font(L"Microsoft Sans Serif", 12,
System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,
        static_cast<System::Byte>(0)));
        this->error->Location = System::Drawing::Point(911, 610);
        this->error->Name = L"error";
        this->error->Size = System::Drawing::Size(437, 29);
        this->error->TabIndex = 11;
        this->error->Text = L"Either Directory or Word is incorrect.";
        this->error->Visible = false;
        //
        // msg
        //
        this->msg->AutoSize = true;
        this->msg->Font = (gcnew System::Drawing::Font(L"Microsoft Sans Serif", 11,
System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,
        static_cast<System::Byte>(0)));
        this->msg->Location = System::Drawing::Point(842, 660);
        this->msg->Name = L"msg";
        this->msg->Size = System::Drawing::Size(595, 26);
        this->msg->TabIndex = 12;
        this->msg->Text = L"Model has been generated. Please check the directory.";
        this->msg->Visible = false;
        //
        // exit
        //
        this->exit->Font = (gcnew System::Drawing::Font(L"Microsoft Sans Serif", 11,
System::Drawing::FontStyle::Bold, System::Drawing::GraphicsUnit::Point,
        static_cast<System::Byte>(0)));
        this->exit->Location = System::Drawing::Point(1611, 610);
        this->exit->Name = L"exit";
        this->exit->Size = System::Drawing::Size(100, 40);
        this->exit->TabIndex = 13;
        this->exit->Text = L"Exit";
        this->exit->UseVisualStyleBackColor = true;
        this->exit->Click += gcnew System::EventHandler(this, &Training::exit_Click);
        //
        // Training
        //
        this->AutoScaleDimensions = System::Drawing::SizeF(9, 20);
        this->AutoScaleMode = System::Windows::Forms::AutoScaleMode::Font;
        this->BackgroundImage = (cli::safe_cast<System::Drawing::Image^
>(resources->GetObject(L"$this.BackgroundImage")));
        this->BackgroundImageLayout = System::Windows::Forms::ImageLayout::Stretch;
        this->ClientSize = System::Drawing::Size(1898, 1024);

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        this->Controls->Add(this->exit);
        this->Controls->Add(this->msg);
        this->Controls->Add(this->error);
        this->Controls->Add(this->dir);
        this->Controls->Add(this->pictureBox2);
        this->Controls->Add(this->word);
        this->Controls->Add(this->listView1);
        this->Controls->Add(this->button1);
        this->Controls->Add(this->label2);
        this->Controls->Add(this->label1);
        this->Name = L"Training";
        this->Text = L"Training";
        this->WindowState = System::Windows::Forms::FormWindowState::Maximized;
        this->Shown += gcnew System::EventHandler(this, &Training::Training_Shown);
        (cli::safe_cast<System::ComponentModel::ISupportInitialize^ >(this->pictureBox2))->EndInit();
        this->ResumeLayout(false);
        this->PerformLayout();

    }
#pragma endregion

private: System::Void button1_Click(System::Object^ sender, System::EventArgs^ e) {
    System::String^ word1 = word->Text;
    System::String^ dir1 = dir->Text;
    msg->Visible = false;
    error->Visible = false;
    SpeechSynthesizer synth;// = gcnew

    // Configure the audio output.
    synth.SetOutputToDefaultAudioDevice();

    if(word1 == "CAR" && dir1 == "CAR"){
        char * word = "CAR";
        char * dir = "CAR";
        modelling(word ,dir);
        msg->Visible = true;
        synth.Speak(msg->Text);
    }
    else if(word1 == "LAPTOP" && dir1 == "LAPTOP"){
        char * word = "LAPTOP";
        char * dir = "LAPTOP";
        modelling(word ,dir);
        msg->Visible = true;
        synth.Speak(msg->Text);
    }
    else if(word1 == "THREE" && dir1 == "THREE"){
        char * word = "THREE";
        char * dir = "THREE";
        modelling(word ,dir);
        msg->Visible = true;
        synth.Speak(msg->Text);
    }
    else{
        error->Visible = true;
        synth.Speak(error->Text);
    }

}

private: System::Void exit_Click(System::Object^ sender, System::EventArgs^ e) {
    Form^ currentForm = Form::ActiveForm; //this is the change, code for
    redirect
    currentForm->Visible = false;
}

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private: System::Void Training_Shown(System::Object^ sender, System::EventArgs^ e) {
    SpeechSynthesizer synth; // = gcnew SpeechSynthesizer();
    // Configure the audio output.
    synth.SetOutputToDefaultAudioDevice();
    // Speak a string synchronously.
    synth.Speak("Please enter the word and directory to train new
words.");
}

};
}
```