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Códigos fontes

Activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity">
    <ProgressBar
        android:id="@+id/progressBarHorizontal"
        style="?android:attr/progressBarStyleHorizontal"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:max="6"
        android:padding="20dp"
        android:progress="0"
        android:progressTint="@color/design_default_color_primary"
        android:visibility="visible" />
    <TextView
        android:id="@+id/guessWord"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:capitalize="characters"
        android:padding="20dp"
        android:textAlignment="center"
        android:textSize="24sp" />
    <EditText
        android:id="@+id/userInput"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="Letra"
        android:inputType="text"
        android:maxLength="1"
        android:textAlignment="center" />
    <Button
        android:id="@+id/tryLetterBtn"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:onClick="tryLetter"
        android:text="Fazer tentativa" />
    <TextView
        android:id="@+id/feedbackText"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:textAlignment="center"
        android:textSize="24sp" />
    <Button
        android:id="@+id/newGameBtn"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:onClick="newGame"
        android:text="Joga novamente"
        android:visibility="gone" />
</LinearLayout>
```

MainActivity.java

```java
package com.example.progressbar;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ProgressBar;
import android.widget.TextView;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    private ProgressBar progressBarHorizontal;
    private TextView tvGuessWord;
    private TextView tvFeedback;
    private EditText editTextTriedLetter;
    private Button tryLetterBtn;
    private Button newGameBtn;
    private int progress;
    private String guessWord;
    private String wordPlaceholder;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        progressBarHorizontal = findViewById(R.id.progressBarHorizontal);
        tvGuessWord = findViewById(R.id.guessWord);
        tvFeedback = findViewById(R.id.feedbackText);
        editTextTriedLetter = findViewById(R.id.userInput);
        tryLetterBtn = findViewById(R.id.tryLetterBtn);
        newGameBtn = findViewById(R.id.newGameBtn);
        progress = 0;

        initiateGame();
    }

    private void initiateGame() {
        String[] words = {
"casa", "bola", "livro", "mesa", "luz", "dedo", "roda", "chuva", "festa", "gato",
"mochila", "banana", "piano", "fogao", "janela", "musica", "filme", "estrada", "escola",
"ponte", "mar", "sol", "lua", "cama", "vento", "copo", "prato", "porta", "teatro",
"arvore", "cadeira", "sapato", "relogio", "aviao", "bicicleta", "computador", "telefone",
"sorvete", "mangueira", "piscina", "jardim", "jogador", "pintura", "cachorro", "girafa",
"elefante", "tigre", "leao", "zebra", "crocodilo"
        };

        int randomIndex = (int) (Math.random() * words.length);
        this.guessWord = words[randomIndex].toLowerCase();

        this.wordPlaceholder = "";
        for (int i = 0; i < guessWord.length(); i++) {
            this.wordPlaceholder += "_ ";
        }
        tvGuessWord.setText(wordPlaceholder);
    }

    private static boolean isNumeric(String str) {
        try {
            Double.parseDouble(str);
            return true;
        } catch (NumberFormatException e) {
```

```java
                return false;
            }
        }

    private static String updatePlaceholder(String letter, String word, String
placeholder) {
            char[] wordArray = word.toCharArray();
            char[] placeholderArray = placeholder.toCharArray();
            char guessedChar = letter.charAt(0);

            for (int i = 0; i < wordArray.length; i++) {
                if (wordArray[i] == guessedChar) {
                    placeholderArray[i * 2] = guessedChar;
                }
            }

            return new String(placeholderArray);
        }

    private void showToastMessage(String message) {
            Toast.makeText(getApplicationContext(),message, Toast.LENGTH_SHORT).show();
        }

    public void tryLetter(View view) {
            String triedLetter = editTextTriedLetter.getText().toString();
            editTextTriedLetter.setText("");

            if (triedLetter.matches("") || isNumeric(triedLetter)) {
                showToastMessage("Insira uma letra válida!");
                return;
            }

            triedLetter = triedLetter.toLowerCase();

            if (this.guessWord.contains(triedLetter)) {
                this.wordPlaceholder = updatePlaceholder(triedLetter, this.guessWord,
this.wordPlaceholder);
                tvGuessWord.setText(this.wordPlaceholder);

                if (!this.wordPlaceholder.contains("_")){
                    showToastMessage("Você acertou a palavra :)");
                    tvFeedback.setText("Você ganhou!");
                    tryLetterBtn.setEnabled(false);
                    newGameBtn.setVisibility(View.VISIBLE);
                    return;
                }

                showToastMessage("Você acertou uma letra!");
                return;
            }

            showToastMessage("Não há essa letra");
            this.progress++;
            progressBarHorizontal.setProgress(this.progress);

            if (progress == 6) {
                showToastMessage("Suas chances acabaram :(");
                tvFeedback.setText("Você perdeu!\nA palavra era: " + guessWord);
                tryLetterBtn.setEnabled(false);
                newGameBtn.setVisibility(View.VISIBLE);
            }
        }

    public void newGame(View view) {
            tryLetterBtn.setEnabled(true);
            newGameBtn.setVisibility(View.GONE);
```

```
        tvFeedback.setText("");
        this.progress = 0;
        progressBarHorizontal.setProgress(this.progress);
        initiateGame();
    }
}
```
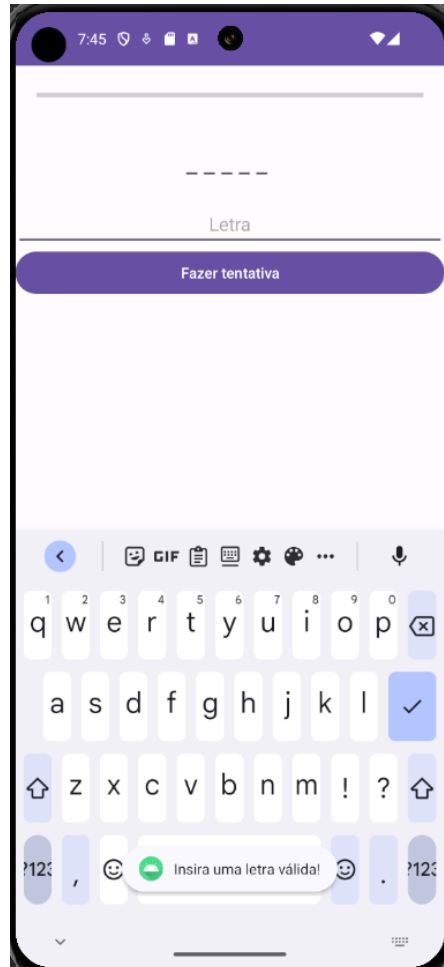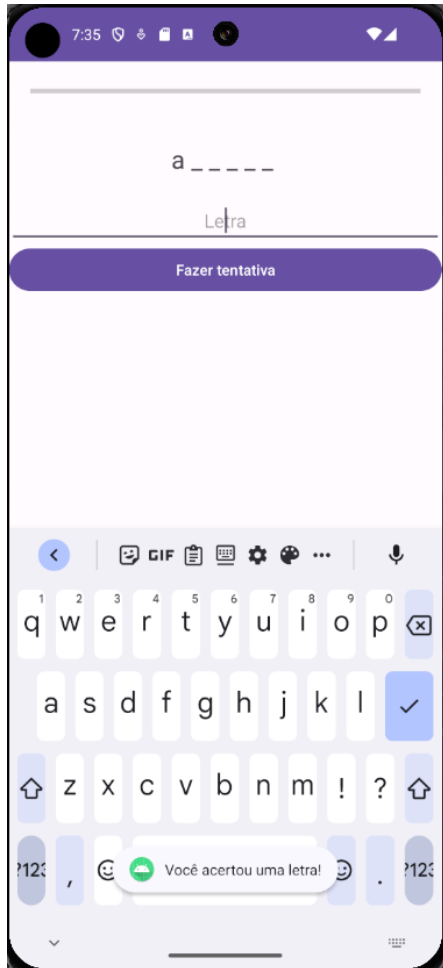
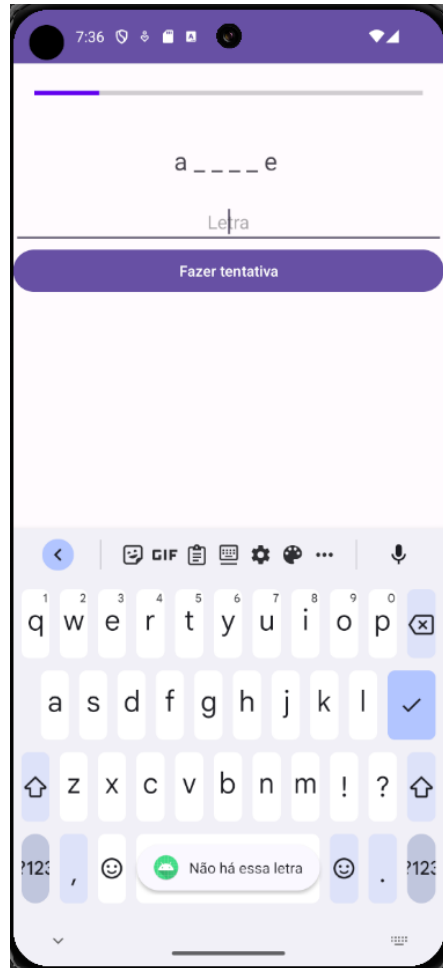## Imagens do aplicativo em funcionamento

Tela inicial do aplicativo

Mensagem de erro caso o usuário insira uma entrada inválida

Tela quando o usuário acerta a letra

Tela quando o usuário erra a letra

Tela quando o usuário acerta a palavra

Tela quando acabam as tentativas do usuário