package com.example.culator;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.TextView;  
import java.util.ArrayList;  
import java.util.List;  
  
public class MainActivity extends AppCompatActivity {  
 private final String Tag="MainActivity";  
 private TextView tv\_input;  
 private float result;  
 private String fuhao;  
 private boolean kuohao=false;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 initUi();  
 }  
  
 private void initUi() {  
 tv\_input = findViewById(R.id.*tv\_input*);  
 }  
 private String[] deletestr(int [] i, String[] str1) {  
 List<String> strs=new ArrayList<String>();  
 for(String s:str1){  
 strs.add(s);  
 }  
 strs.remove(i[0]);  
 strs.remove(i[1]-1);  
 String str[]=new String[str1.length-2];  
 for(int j = 0;j<str.length;j++){  
 str[j]=strs.get(j);  
 }  
 return str;  
 }  
 private String[] deletestr1(int i,int j,String[] str1){  
 String[] strs=new String[str1.length-(j-i+1)];  
 for(int ii=0,kk=0;ii<str1.length;ii++){  
 if(ii<i||ii>j+1){  
 strs[kk]=str1[ii];  
 kk++;  
 }  
 }  
 return strs;  
 }  
 private String getresult() {  
 String data= tv\_input.getText().toString();  
 //将数字与运算符号切割  
 String[] str1 = data.split(" ");  
 String str2[]={"\*","\*","\*","\*","\*","\*","\*","\*","\*","\*","\*","\*","\*","\*","\*","\*","\*","\*","\*","\*"} ;  
 int khpos1=0;  
 int khpos2=0;  
 //循环计算，得到最后结果  
 while (str1.length!=1){  
 for(int i=0;i<str1.length;i++) {  
//检测括号所在的位置  
 if (str1[i].equals("(")) {  
 khpos1 = i + 1;  
  
 } else if (str1[i].equals(")")) {  
 khpos2 = i - 1;  
 for (int j = khpos1, k = 0; k < str1.length; j++, k++) {  
 while (j <= khpos2) {  
  
 str2[k] = str1[j];  
 j++;  
 k++;  
  
 }  
 }  
  
  
 //别忘了删掉str1括号一段，变成一个数，这里运用getresult  
 str1=deletestr1(khpos1-1,khpos2,str1);  
//数字在前面，保留+号，数字在括号后面怎么办  
  
 int l = 0;  
 while (str2[l] != "\*") {  
l++;  
 for (int j = 0; j < str2.length; j++) {  
 if (str2[j].equals("×") || str2[j].equals("÷")) {  
 if (str2[j].equals("×")) {  
 str2[j] = (Float.*parseFloat*(str2[j - 1]) \* Float.*parseFloat*(str2[j + 1])) + "";  
 int[] index = new int[]{j - 1, j + 1};  
 str2 = deletestr(index, str2);  
  
 } else {  
 str2[j] = (Float.*parseFloat*(str2[j - 1]) / Float.*parseFloat*(str2[j + 1])) + "";  
 int[] index = new int[]{j - 1, j + 1};  
 str2 = deletestr(index, str2);  
  
 }  
 }  
 }  
 //+,-计算方法  
 for (int j = 0; j < str2.length; j++) {  
 if ("+".equals(str2[j]) || "-".equals(str2[j]) || "\*".equals(str2[j])) {  
 if (str2[j].equals("+")) {  
 str2[j] = (Float.*parseFloat*(str2[j - 1]) + Float.*parseFloat*(str2[j + 1])) + "";  
 int[] index = new int[]{j - 1, j + 1};  
 str2 = deletestr(index, str2);  
 } else if (str2[j].equals("-")) {  
 str2[j] = (Float.*parseFloat*(str2[j - 1]) - Float.*parseFloat*(str2[j + 1])) + "";  
 int[] index = new int[]{j - 1, j + 1};  
 str2 = deletestr(index, str2);  
 } else {  
 break;  
 }  
 }  
 }  
 for (int j = 0; j < str2.length; j++) {  
 if ("½".equals(str2[j])) {  
 if (str2[j].equals("½")) {  
 str2[j] = (java.lang.Math.*sqrt*((double) Float.*parseFloat*(str2[j - 1]))) + "";  
 int[] index = new int[]{j - 1, j + 1};  
 str2 = deletestr(index, str2);  
 } else {  
 str2[j] = (Float.*parseFloat*(str2[j - 1]) \* Float.*parseFloat*(str2[j + 1])) + "";  
 int[] index = new int[]{j - 1, j + 1};  
 str2 = deletestr(index, str2);  
 }  
 }  
 }  
  
  
 }  
 }  
 }  
  
str1[khpos1]=str1[0];  
  
  
 //×,÷计算方法  
 for(int i=0;i<str1.length;i++){  
 if(str1[i].equals("×")||str1[i].equals("÷")){  
 if(str1[i].equals("×")){  
 str1[i]=(Float.*parseFloat*(str1[i-1])\*Float.*parseFloat*(str1[i+1]))+"";  
 int [] index=new int[]{i-1,i+1};  
 str1=deletestr(index,str1);  
  
 }  
  
 else{  
 str1[i]=(Float.*parseFloat*(str1[i-1])/Float.*parseFloat*(str1[i+1]))+"";  
 int [] index=new int[]{i-1,i+1};  
 str1=deletestr(index,str1);  
 }  
 }  
 }  
 //+,-计算方法  
 for(int i=0;i<str1.length;i++){  
 if("+".equals(str1[i])||"-".equals(str1[i])){  
 if(str1[i].equals("+")){  
 str1[i]=(Float.*parseFloat*(str1[i-1])+Float.*parseFloat*(str1[i+1]))+"";  
 int [] index=new int[]{i-1,i+1};  
 str1=deletestr(index,str1);  
 }else {  
 str1[i]=(Float.*parseFloat*(str1[i-1])-Float.*parseFloat*(str1[i+1]))+"";  
 int [] index=new int[]{i-1,i+1};  
 str1=deletestr(index,str1);  
 }  
 }  
 }  
 for(int i=0;i<str1.length;i++){  
 if("½".equals(str1[i])){  
 if(str1[i].equals("½")){  
 str1[i]=(java.lang.Math.*sqrt*((double)Float.*parseFloat*(str1[i-1])))+"";  
 int [] index=new int[]{i-1,i+1};  
 str1=deletestr(index,str1);  
 }else {  
 str1[i]=(Float.*parseFloat*(str1[i-1])\*Float.*parseFloat*(str1[i+1]))+"";  
 int [] index=new int[]{i-1,i+1};  
 str1=deletestr(index,str1);  
 }  
 }  
 }  
  
  
 }  
 return str1[0];  
 }  
 //同时删除数组中计算完成符号左右数  
  
 /\*-  
 private String[] deletestr1(int i, int j,String[] str1) {  
 int feixing=0;  
 while(i<=j){  
 str1[i]="\*";  
 i++;  
 }  
 String str[]=new String[str1.length-(i-j+1)];  
 for(int jj = 0;jj<str.length;jj++){  
  
 if(str1[jj]!="\*"){  
 str[jj]=str1[feixing];  
 feixing++;  
 }  
 else{j--;}  
 return str;  
 } \*/  
  
  
 private void tvInputtext(String s) {  
 //第一次输入 将0去除，以及上次结果置空  
 if(tv\_input.getText().toString().equals("0")||tv\_input.getText().toString().contains("=")){  
 tv\_input.setText("");  
 }  
 //符号左右添加空格方便split  
 boolean o=false;  
 if(s.equals(")")){  
 tv\_input.setText(tv\_input.getText()+" "+s);  
 o=true;  
 }  
  
 else if(s.equals("×")||s.equals("-")||s.equals("+")||s.equals("÷")||s.equals(")")||s.equals("½")||s.equals("^2")){  
 if(o){tv\_input.setText(tv\_input.getText()+" "+s);o=false;}  
 else{  
 tv\_input.setText(tv\_input.getText()+" "+s+" ");  
 }  
  
 }else if(s.equals("(")){  
 tv\_input.setText(tv\_input.getText()+s+" ");  
  
 }  
 else{  
 tv\_input.setText(tv\_input.getText()+s);  
 }  
 }  
 //按钮点击事件  
 public void onSubmit(View view){  
 int id = view.getId();  
 switch (id){  
 // -1 - ( 9 + 6 )  
 case R.id.*bt\_value0*:  
 tvInputtext("0");  
 break;  
 case R.id.*bt\_value1*:  
 tvInputtext("1");  
 break;  
 case R.id.*bt\_value2*:  
 tvInputtext("2");  
 break;  
 case R.id.*bt\_value3*:  
 tvInputtext("3");  
 break;  
 case R.id.*bt\_value4*:  
 tvInputtext("4");  
 break;  
 case R.id.*bt\_value5*:  
 tvInputtext("5");  
 break;  
 case R.id.*bt\_value6*:  
 tvInputtext("6");  
 break;  
 case R.id.*bt\_value7*:  
 tvInputtext("7");  
 break;  
 case R.id.*bt\_value8*:  
 tvInputtext("8");  
 break;  
 case R.id.*bt\_value9*:  
 tvInputtext("9");  
 break;  
 case R.id.*bt\_cheng*:  
 tvInputtext("×");  
 break;  
 case R.id.*bt\_chu*:  
 tvInputtext("÷");  
 break;  
 case R.id.*bt\_clean*:  
 //清除按钮 置空  
 tv\_input.setText("");  
 kuohao=false;  
 break;  
 case R.id.*bt\_dengyu*:  
 tv\_input.setText(tv\_input.getText()+"="+getresult());  
 break;  
 case R.id.*bt\_dian*:  
 tvInputtext(".");  
 break;  
 case R.id.*bt\_jia*:  
 tvInputtext("+");  
 break;  
 case R.id.*bt\_jian*:  
 tvInputtext("-");  
 break;  
 case R.id.*bt\_dao*:  
 tv\_input.setText("1"+" ÷ "+tv\_input.getText());  
 break;  
 case R.id.*bt\_gen*:  
 tv\_input.setText(tv\_input.getText()+" ½ 次");  
 break;  
 case R.id.*bt\_ping*:  
 tv\_input.setText(tv\_input.getText()+" × "+tv\_input.getText());  
 break;  
 case R.id.*bt\_kuo*:  
 if(kuohao){  
 kuohao=false;  
 tvInputtext(")");  
 }  
 else{  
 kuohao=true;  
 tvInputtext("(");  
 }  
 }  
 }  
}