**package** AlgorithmDivideAndConquer;

**public class** LongestCommonPrefix {

**public** String[] **tempString**;

**public** String **prefix** = **""**;

**public** String **commonPrefix**=**""**;

**public void** getString(String[] strings)

{

**this**.**tempString** = strings;

}

**public void** callFunction()

{

doDivide(0, **this**.**tempString**.**length** - 1);

}

**public** String doDivide(**int** lowerIndex, **int** higherIndex)

{

**if** (lowerIndex == higherIndex) **return tempString**[lowerIndex];

**else if** (lowerIndex == higherIndex -1)

{

**int** length = Math.*min*(**tempString**[lowerIndex].length(), **tempString**[higherIndex].length());

**prefix**=**""**;

**for** (**int** i = 0; i < length ; i++)

{

**if** (**tempString**[lowerIndex].charAt(i) == **tempString**[higherIndex].charAt(i))

{

**prefix** = **prefix** + **tempString**[lowerIndex].charAt(i);

}**else**

{

**break**;

}

}

}**else**

{

**int** middle = lowerIndex + (higherIndex - lowerIndex) / 2;

doDivide(lowerIndex, middle);

String prefix1 = **prefix**;

doDivide(middle + 1, higherIndex);

**int** length = Math.*min*(prefix1.length(),**prefix**.length());

**for** (**int** i=0;i<length;i++)

{

**if** (prefix1.charAt(i)==**prefix**.charAt(i))

{

**commonPrefix** = **commonPrefix** + prefix1.charAt(i);

}

}

}

**return commonPrefix**;

}

**public static void** main(String[] args) {

String[] array = {**"technique"**, **"technician"**, **"technology"**, **"technical"** };

LongestCommonPrefix object = **new** LongestCommonPrefix();

object.getString(array);

object.callFunction();

System.***out***.println(object.**commonPrefix**);

}

}