Assignment 3: Fork Program

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Program Description:

This is a text replacement program that allows the user to replace a user-specified string within a given document with another string that the user specifies. The program uses a child process to replace the string if it exists in the document, and then the child process writes the document to file after it has replaced the string. After that, the child will print the number of times one string was replaced with the other and then return to the parent who will then prompt the user for another set of strings. The program exits when the user types "!wq" only when the program prompts the user for the string to replace.

The following pages contain test cases.

The following pages contain the sample texts used for this program.

Sample1.txt

Frederick Vivian Simpson, known as Vivian Simpson (23 August 1903 – 1977) was a politician in Northern Ireland.

Born in Dublin, Simpson worked as a draper and footwear manufacturer,[1] and also became a lay preacher.[2]

Simpson joined the Northern Ireland Labour Party (NILP) and stood unsuccessfully for Stormont in Larne both in a 1945 by-election, and in the general election later that year. In 1947, he was elected to Carrickfergus District Council. In the 1953 general election he switched to contest Carrick, but was again unsuccessful. He was finally elected to Stormont in Belfast Oldpark in 1958. He then stood down from his council seat, and retained his Parliamentary seat at each subsequent election.[1]

In March 1969, Simpson became the Deputy Chairman of Ways and Means and Deputy Speaker of the Northern Ireland House of Commons, holding this post until the proroguation of the Parliament in 1972.[1] After his party colleague Paddy Devlin defected to the Social Democratic and Labour Party, he became the sole remaining NILP MP, and the only non-Unionist MP attending Parliament.[3] He became regarded as the party leader; for example, the NILP's manifesto for the Belfast City Council elections of 1973 carried a foreword written by him.[4]

At the 1973 Northern Ireland Assembly election, Simpson stood in Belfast North, but fell well short of taking a seat.[5]

Source: https://en.wikipedia.org/wiki/Vivian Simpson

Sample2.txt

Barret Rey is an American college baseball coach, currently serving as head coach of the Alcorn State Braves baseball team. He was named to that position prior to the 2010 season. Rey previously served as head coach of the Grambling State Tigers baseball team from 2007 through 2009.[1]

Rey was a four-year letterman as a pitcher at Southern, where he helped lead the Jaguars to a pair of NCAA Regional appearances, earned All-SWAC twice, and recorded a 21–6 record with 156 strikeouts, 13 complete games, and 3 shutouts. Rey remains among the school's leaders in many pitching categories, and is best remembered for his 7–0 freshman campaign. After completing his eligibility, Rey served one year as a graduate assistant while completing his degree, then became a full-time assistant with the Jaguars. The Jaguars continued their dominance of the SWAC, winning six Southwestern Athletic Conference Baseball Tournament titles in nine years. Rey added recruiting coordinator duties, and was instrumental in recruiting and coaching 21 future draft picks, including Rickie Weeks to Southern. Rey also completed a master's degree at Southern in 2003.[1][2][3]

Following the 2006 season, Rey was hired as head coach at Grambling State. The Tigers had not appeared in the SWAC Tournament in seven years, and had finished just 6–36 the previous season. Under Rey, the Tigers qualified for a pair of SWAC Tournaments in three years, and compiled a record of 56–94. Citing a desire to be closer to his wife and children, Rey accepted the head coaching job at SWAC rival Alcorn State beginning in 2010.[4][5] In his second season, the Braves claimed the top record in the league, won the East Division, and won the SWAC Tournament to qualify for their first NCAA Regional. Rey was named SWAC Coach of the Year for his efforts.[1]

Source: https://en.wikipedia.org/wiki/Barret Rey

Sample3.txt

Peter Gerald Aitken (born 30 June 1954) is a Welsh former footballer who played nearly 300 games in the Football League.

Aitken began his career as an apprentice with Bristol Rovers, making his debut in the 1972–73 season. He joined local rivals Bristol City in 1980, and two years later, with the club in danger of folding, Aitken was one of the "Ashton Gate Eight", eight players who agreed to terminate their contracts to save the club. The others were Dave Rodger, Geoff Merrick, Julian Marshall, Chris Garland, Jimmy Mann, Trevor Tainton, and Gerry Sweeney.[3] While at Rovers he was the club captain, and after joining City he became the only player to captain both Bristol Clubs.[4]

Aitken joined York City, playing 18 times before the end of the season. After a spell in Hong Kong, in July 1982 he joined non-league Bath City,[5] although also played once for Bournemouth on non-contract terms the following season.[6] He remained with Bath until June 1985 when he left to join Trowbridge Town.[5] He later joined Forest Green Rovers before rejoining Bath City in February 1988, although was released at the end of the season.[5]

He returned to Bath for a third time in the 1991 close season, as assistant manager under Tony Ricketts. However, he was released as part of a cost-cutting process before the end of the season.[5] He was later assistant manager to Lindsay Parsons a Cheltenham Town and briefly appeared for them on one occasion.

He later returned to Bristol Rovers to work in their Community Department, taking up the post of Community Manager in 2000, a post he held until October 2016.[7]

Source: https://en.wikipedia.org/wiki/Peter Aitken

testDoc.txt

Hello world! My name is Alice and I have 1 dog named Jasper. Jasper loves running around.