You are given a directory path containing student submissions in HTML format. Each file has an extension of ".html" named after the student's roll number. The roll number follows a specific pattern: the first two letters represent the year, the third letter represents the course type (B for Bachelor's, M for Master's, D for Doctorate), and the remaining four letters represent the serial number. Your task is to create three text files named "btech.txt," "mtech.txt," and "phd.txt" in the same directory as your bash script. Inside each file, you should save the roll numbers corresponding to the respective degree type in the format year<space>serial\_number. For example, “22B0001” is the roll number, you should save the corresponding entry in btech.txt as “22 1”. Additionally, in the terminal output should be the total number of submissions for btech, mtech, and phd separated by space in the same order.

Ex. Folder contains files, 22M0001.html, 22B0001.html, 22D0001.html, 22B0002

The output files btech.txt will contain:

22 1

22 2

The output files mtech.txt will contain:

22 1

The output files phd.txt will contain:

22 1

The output on the terminal:

2 1 1

Hint - The basename command might be useful here, use the man pages to see what it does.