Distributed Grep

Progetto per il corso di Sistemi Distribuiti e Cloud Computing

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INTRODUZIONE

Il miniprogetto assegnato durante il corso, prevede l’implementazione di un “grep” distribuito con il linguaggio Go, utilizzando RPC e un paradigma map-reduce.

IMPLEMENTAZIONE

L’IDE utilizzato è Goland, la struttura del progetto è un tipico client server, nella cartella server registriamo appunto quest’ultimo attraverso le chiamate Register, Listen e Accept viste a lezione, in questo modo mettiamo in attesa il server sulla porta 4040. A questo punto possiamo creare i servizi offerti dal nostro server, attraverso le interfacce dei metodi che andremo ad utilizzare, che poi dovremmo passare alle “call” o “go” del client. In particolare andiamo a creare un’unica interfaccia che prende come input una stringa(la parola da cercare) e una struct che andrà a contenere la risposta, con a sua volta una stringa (le righe contenenti la parola da cercare) e un intero (il numero di occorrenze della parola cercata). Nel client viene chiamata l’api attraverso call(), la scelta è dovuta al fatto che dobbiamo aspettare un input dell’utente, e manda come input un inserimento dell’utente preso con scanf. A questo punto viene implementato il vero e proprio grep distribuito, creando N goroutine, che splittano il file in cui cercare in N parti, che comunicano con il thread master attraverso dei channel contenuti in una slice di array.

1 Insert Heading Level 1

The updated template, user manuals, samples, and required fonts, all are available at the URL <https://www.acm.org/publications/proceedings-template>. It contains said information for all three versions of MS Word (Windows and 2 versions of Mac). There are also separate links to the user guide, which can be referred to by the user. This URL also contains some useful video links, which describe how to add the template, structure the paper, and generate the layout, in different clips. **Display Formula with Number**

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Figure 1: Figure Caption and Image above the caption [In draft mode, Image will not appear on the screen]

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3. Select the **Alt Txt** option from the left-side panel options.
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Below are steps to place alt-txt value in **MS Word 2013/2016**. To add alternative text to a picture in Word 2013/2016, follow these steps:

1. In a Word 2013/2016 document, insert a picture.
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3. In the settings at the right side of the window, click on the "Layout & Properties" icon (3rd option).
4. Expand **Alt Txt** option.
5. In the "Title:" and "Description:" text boxes, type the text you want to represent the picture, and then click "Close".

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