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we enjoy the lecture so much

**Part 1: Compression (40 points)**

🡺 The lyrics of your chosen song, with attribution please.

beete

din

fikr

haath

haath

hai

hai

ishq

ishq

jaaun

jaaun

jo

jo

kesariya

kesariya

khair

lagau

lagau

main

main

manau

mein

pia

pia

rain

rang

rang

saara

saari

tera

tera

teri

teri

🡺 Your dictionary of compression token and the string of characters (including trailing space) that the token replaced, one entry per line:

~haath

!hai

@ishq

#jaaun

$jo

%kesariya

^lagau

&main

\*pia

(rang

)tera

+teri

🡺 The compressed lyrics:

% ) @ ! \*

( # $ & ~ ^

din beete saara + fikr mein

rain saari + khair manau

% ) @ ! \*

( # $ & ~ ^

🡺 What is total dictionary *plus* compressed text characters as a percentage of the original text’s 182 (approximate) characters?

\_63\_dictionary with spaces

+ \_91\_compressed lyrics with spaces

= \_154\_total after compression

/ 169 divided by number of original characters with spaces \* 100

= \_\_91\_% of original

🡺 T**est your compression dictionary by decompressing.** Process dictionary items from the bottom up: find the compression character in the compressed data and replace it with the original string.   
**Paste the decompressed version below** – *even if it is not perfect*.   
**What modifications, if any, does the compression dictionary need to return the compressed data back into its original state?**

Kesariya tera ishq hai pia

Rang jaaun jo main haath lagau

Din beete saara teri fikr mein

Rain saari teri khair manau

Kesariya tera ishq hai pia

Rang jaaun jo main haath lagau

I test my compression dictionary by decompression and its work perfectly with all the character I and it return back to its original form.

**Part 2:**

**🡺** Paste the image of the Windows [File] Explorer .zip archive information or equivalent from macOS.

Background pattern

Description automatically generated

🡺 Files with the **lowest** ratios were compressed the **least**. Ratio indicates % of space saved.  
Which file types compressed the least? (**2.5 points**) **Why** would that be? (**7.5 points**)

The file name “parrot.bmp” compress the least with the size of 1.8 mb. The compression of all files depends on their extensions here with the “parrot.bmp” the extension is .bmp which is also knows as the bitmap which have size of 14 bytes due to more in size system already compress it maximum if system compress .bmp more than it may be chance of affecting the pixels of image and the image may be distorted

🡺 Files with the **highest** ratios were compressed the **most**.   
Which file types compressed the most? (**2.5 points**) **Why** would that be? (**7.5 points**)

The file with name “CP4P\_Compression\_Activity\_calculator.xlsx” compress the most with size of 22 kb. As always the xlsx files contains plain text and some times the image but with very minimal storage so it can be compress maximum without harming any content inside the file

**Part 3: Backup**

🡺 paste a screen shot of your backup results. (use the Screen Snip tool) **(10 points)**

Graphical user interface, text

Description automatically generated

Your backup & restore strategy **(30 points total for four answers ~100 words each, 400 in total.)**

🡺 What is (or what should have been) your backup routine? How do you ensure your backup is current?

My backup schedule is once a month, probably on the last weekend of every month. This is crucial for me to do because I am a student and must complete numerous assignments as well as make notes, presentations, and many other things. I also need to keep these things safe so that I can refer to them in the future, so I regularly back up all my important study materials. I always make folders for each month, and within those folders, I create subfolders for each week, saving everything in the appropriate place so that I can easily access my backup materials. And I always make sure before each backup that my last month stuff is backed up and saved properly or not.

🡺 How does your backup routine address the three characteristics of a real backup and fulfill the 3-2-1 backup check?

There are three aspects of my backup process that I pay particular attention to:

1. Always create appropriate folders and subfolders to save your stuff in, so it's simple for you to access when you need It's also easy to check whether you've properly backed up your stuff or not.

2. I usually like to create or convert folders into zip files so that they use the least amount of space to hold the most amount of data. By doing this, I can save a lot of items and perform numerous backups without worrying about the amount of available space.

3. I frequently forget my laptop at home, so I make sure that anything I backup is accessible on all of my devices. So that even if don’t have my laptop I can get my work done with the other device that I have.

🡺 Now that you have a backup *but no laptop*, how will you access and work with the current version of your backed up files? What is your restore/recovery strategy?

So, in order to retrieve my work, I always try to log in using the same account that I used to back it up on any other device, whether it be at work, college, or a friend's laptop. I often create a backup copy and save it on my actual hard drive, which is more convenient in this particular circumstance because I can just connect my hard drive to any other device to retrieve all of my work.

🡺 How long would this all take…and what if you a had a big assignment due tomorrow?

It always takes a few hours to back up, but as I've already mentioned, I always make a backup copy on my hard drive, so even if I have to turn in my assignment the following day, I won't be concerned because I can access all the work by simply plugging in my hard drive. As a result, I didn't lose any points for my assignment because of some technical errors. And it’s always good habit of backing up your important stuff so that if u face any situation like this you can easily cope up,