Note: Please refer the datfile sent with this document for the data to use.

The datfile consists of list of companies that are registered in the Leh & Ladakh region. It has the following columns:

CORPORATE_IDENTIFICATION_NUMBER	Unique identification number for the company
Company_Name	Company's name
Company_status	Active / Strike off. Strike off means closed
Company_class	Public (means listed in stock markets) or Private (means not listed in stock markets)
Company_Category	Company category - limited by shares etc. Not important for this prob statement
Company_sub_category	Company sub category - govt / non govt etc. Not important for this prob statement
DATE_OF_REGISTRATION	When was the company registered?
REGISTERED_STATE	Which state did the company get registered in?
AUTHORIZED_CAP	Maximum amount of capital for which shares can be issued by the company (Read more here: https://cleartax.in/s/authorised-capital-vs-paid-up-capital/)
PAIDUP_CAPITAL	Amount of money for which shares have been issued by the company
Industrial_Class	Industry code
PRINCIPAL_BUSINESS_ACTIVITY_AS_PER_CIN	Sector the company operates in
Registered_Office_Address	Office address
REGISTRAR_OF_COMPANIES	Registrar code
EMAIL_ADDR	Contact email address
Latest_Year_AR	-
Latest_Year_BS	-

With this data, write a script that can answer the following questions (exposed as methods that can be called with arguments):

1. Which company has the highest amount of authorized capital? Filter by company status = Active?
2. Which company has the highest amount of paid up capital? Filter by company status = Active?
3. Show breakdown of companies by highest authorized / paid up capital, by registration year / by sector / by company class / by company status
4. Which company/companies have most percentage of authorized capital taken up by paid up capital? Which have the least percentage? What is the percentage? Break down by registration year / by sector / by company class / by company status
5. Which city in the region produces the company with most valuable companies (with higher authorized capital). Break down by registration year / by sector / by company class / by company status

Tips:
- Avoid hardcoding. Read the file containing data as input and allow calling functions with filters / breakdowns passed as arguments, which then performs logic on the data and returns answers as output.
- Have well commented code.