Task Evaluation criteria

Each submission will be evaluated on the following criteria:
1. Each candidate should submit ONE entry only.
2. Each submission should pick ONE use case to demonstrate your capabilities.
3. If we find evidence of crowd sourced solution, all entries with the copied code will be dropped from evaluation. Use of common libraries (ex: pandas in python) is an exclusion from this rule.
4. Is there a working visual built that narrates a story answering the questions
   a. E.g. A link to a working project on github.io or heroku or your website.
   b. A github (or similar) repository link from which we can replicate the solution.
a. README file, code comments explaining your approach to the problem.
b. Demonstrate understanding of the following skills
   1. Data clean-up, data transformation
   a. Approach to handle business rules
   b. Faster rendering of visuals (read Code quality)
b. Does the solution answer ALL 3 questions in the Use case. Each question needs to be answered with a supporting visual.

Task Sections

Product development at Appingway heavily relies on expertise in Python, JavaScript, CSS, HTML, Pandas in no particular order. We would prefer you use similar skills while working on the below problems. Mandatory tasks: Python, Analysis. JavaScript tasks are good to accomplish (bonus points).

Python:
1. Given two lists L1 = ['a', 'b', 'c'], L2 = ['b', 'd'], find common elements, find elements present in L1 and not in L2?
2. How many Thursdays were there between 1990 - 2000?

Javascript:
1. Given the following Javascript array:

   var data = [0, 1, 2, 'stop', 2, 0, 1, 'stop']

   write a Javascript function or expression that returns an array with just
   the zeroes removed.

2.

Analysis:
We have identified below <u>two</u> real world problems for your consideration. Request you to review the three and pick <u>ONE</u> for your skill demonstration.

The data files for each use case are available on folder called "<u>Data Files</u>"

Use case 1 - National Achievement Survey

National Council of Education Research and Training conducts yearly National Achievement Survey. We have provided the data of Class VIII students from 2014.

File: "<u>appingway-usecase-nas.7z</u>"

Questions to answer

1. What influences students performance the most?
2. How do boys and girls perform across states?
3. Do students from South Indian states really excel at Math and Science?

If you would like to explore more use-cases please feel free. Bonus points will be awarded for these.

Use case 2 - 2011 India Census

Indian government carries out census every decade. This dataset contains information from the 2011 census with district level granularity on population, gender, literacy, socioeconomic status (electricity, mobiles, Internet) among a lot of other dimensions.

File: "appingway-usecase-census.7z"

Questions to answer

1. Create a geographic map of states with low literacy rates.
2. Find out most similar districts in Bihar and Tamil Nadu. Similarity can be based on any of the columns from the data.
3. How does the mobile penetration vary in regions (districts or states) with high or low agricultural workers?

If you would like to explore more use-cases please feel free. Bonus points will be awarded for these.

Where to Submit

Now that you have completed the task and excited to send us your work, please follow the below steps:

1. Email your work to – appingwaysubmission@gmail.com
   1. Must: README file explaining the steps
   2. Visual output link (GitHub pages or Heroku app or your personal website) and/or
   3. Code repository (GitHub, Bitbucket, GitLab, etc)
   b. Subject Line - "Gramener - Product Team - Submission".
   c. Feel free to attach a copy of your latest resume.
   d. If you face any trouble accessing the data files or have any questions on the intended exercise, please email us at appingwaysubmission@gmail.com with subject line in # 2 above.
   e. Candidates shortlisted based on the Evaluation Criteria listed above will hear from us.