Group Quiz

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1. How will your group approach the problem? Will you split it among group members? Will you work on it all together? Or some other approach?

   Solution. We will approach the solution by evaluating the subsets as having an *associated weight per set item* essentially like an average weight per unit and find a solution of the lowest subsets that meet the full set. We will attempt to do all the work together or at the very least implement pair programming. □

2. How will you make sure you are on track? How structured or unstructured will your group be in working on the project?

   Solution. We will set goals for deadlines before we begin the work and evaluate ourselves to make sure we're on track. We will not be structured in the sense that we have a specific task broken up by specific days, but rather we will set larger goals to be met. □

3. What problems do you anticipate with communication among group members? What can you do to address those potential issue now? How could you address those issues when they arise?

   Solution. I could see our differing schedules being a conflict if we decide to work on everything in pairs. We can address these issues by working individually or over some electronic platform. □

4. What can you as a group do to produce a quality product in a reasonable amount of time?

   Solution. We can adhere to a set work schedule and ensure we meet goals through active communication and participation. □

5. What qualities are important in a group member? How will you grade each other? What will you do if one of your team members doesn't pull their weight?

Solution. A good group member is as motivated as the others and communicates efficiently, effectively, and frequently. We will start by assuming we will all do a third of the work and levy penalties for an egregious lack of work. □

6. Is your group trying to win the competition?

   Solution. Yes. □

7. What programming language will your group use?

   Solution. Python. □

8. What type of heuristic will your group try to implement first?

   Solution. We will implement the least weight per item in subset first, then the mostly disjoint heuristic next. □

9. How will you create an input for the problem?

   Solution. We will implement this after we implement the output algorithm. From this knowledge we will use a combination of handcrafting and random number generating to create an input we know we may have had trouble with before debugging □

10. How will you write a verifier for this problem?

    Solution. We will do 2 things

    (a) Checking to make sure the subsets actually union to form the set
    (b) Verify the weights were added correctly.

    □

11. What percentage of the time will you dedicate to creating an input, creating a heuristic, and creating a verifier?

    Solution.

    - Heuristic - 80%
    - Input - 18%
    - Verifier - <2%

    □