12.2.6 Solutions

1. *Using an Effective Organizational Structure*

   For MeCorp Energy, the flexibility and autonomy of the organization suggest that a Matrix organizational structure would be a good fit.

   For XYZ Technologies, the traditional hierarchical design and employing a strong chain of command suggest that a Functional Top-Down organizational structure would be a good fit.

2. *Creating an Comprehensive Data Classification Program*

   You will want to ensure that your data classification program does not contain to many layers of granularity. Maintaining a classification program with a single layer is convenient but insecure; conversely, one with too many layers is secure, but very inconvenient. Your structure should include 3-4 layers. Common programs use layers such as Public, Internal, and Confidential or Public, Internal, Confidential, and Secret. You will also want to ensure that appropriate information is being kept in each layer. This will vary by organization. For example, a restaurant may value its recipes more than its employee records (not suggested for legal reasons) while a medical company may value its patient records at highest priority (for HIPAA purposes).

3. *Choosing the Right Team*

   This exercise can be performed many ways, and there may be multiple high quality teams which can be selected from the team above. The main takeaways should be that the company requires four employees; 1 project manager, 2 programmers, and 1 sponsor representative.

   Looking at the candidate pool, we can break the candidates into which categories they possess an affinity for trait wise.

   Project Manager Candidates: Trey and Brittney both have high leadership traits and both have above average teamwork traits.

   Programmer Candidates: Joseph, Marianne, Brittney, and Jayci all have high technical traits, as well as average to above average independence and teamwork traits.

Sponsor Representative Candidates: Shawn, Brittney, and Brooke all have high soft skill traits. Brittney and Brooke have above average technical trait while Shawn has a below average technical trait.

This sort of problem has many known variants in computer science, one of which is known as the Knapsack Problem. In essence, the goal is to select the highest value items (in this case candidates), while remaining under a threshold (in this case the budget). While there may be other team selections, potentially better, one example, along with a justification follows.

For the following team, Brittney has been selected as the project manager, Joseph and Marianne have been selected as the programmers, and Brooke has been selected as the sponsor representative.

The choice for project manager was made by virtue of Brittney having more strength in the teamwork trait. Although Brittney does have a higher cost, the increased teamwork was valued at a higher priority.

The choice for Marianne and Jayci was made based on cost. Although Joseph was a stronger candidate in terms of trait values, the cost was not worth the trade off. Brittney was no longer considered on account of already being selected for the project manager position.

The choice for the sponsor representative was made because Brooke had a much higher technical trait, which was necessary for this position. Brittney was again not considered on account of having already been selected for project manager.

As stated earlier, this is not the only solution to this problem, and may not even be the most optimal solution. Consider writing a computer program which calculates the most optimal team given the constrains of this problem.