Homework 1: Sample solution

There are, of course, many different ways to approach this exercise, and there is not a single correct solution; rather, this is just an example of what a solution could look like.

I consider a cycling trip through Central Asia, from Tashkent, Uzbekistan, to Bishkek, Kyrgyzstan, a distance of about 600 km, with a group of about 5 people. We go in April to ensure a moderate temperature. There are many possible risks to this vacation, to name a few:

1. One of the bikes may break down. At least some kind of wear-and-tear or damage is to be expected on such a long trip (probability: high), and if we cannot fix it, we cannot continue the trip, and we have to walk to the nearest repair shop, which may be far away (impact: moderate). We can mitigate this risk by bringing a repair kit that allows us to do some rudimentary repairs on the way. Thus we *Treat* the risk by reducing the probability of unrepairable damage.
2. It may rain on one of the days, making the trip less pleasant. Since we go in April, it rains about 25% of the time, so the probability of getting rain at least once on our trip is moderate/high. The impact is low, as it will be a bit unpleasant. Since we cannot prevent the rain from happening and it is not worth cancelling the trip for, we choose to *Tolerate* this risk.
3. Due to COVID, at least one of the countries we want to visit might close its borders, making us unable to even start our trip, so we lose our money without getting the trip in return (impact: moderate/high). At the moment, I would estimate the probability to be low, but this may change in the future. To mitigate this risk we can choose to take travel insurance, so that our money will be reimbursed in such an event; thus we *Transfer* the risk, reducing the impact on us.
4. We may get caught up in violence in the region, causing one or more of us to get hurt. At the moment the probability of this happening is low, it is also nonzero considering border clashes in 2021 and 2022, and the impact is high. We keep an eye on the news, but if the situation changes so that the probability gets too high, we choose to *Terminate* the trip.
5. One of us may get into an accident, which can happen especially around major cities where the traffic is more crowded (probability: moderate, impact: moderate/high). By wearing helmets, we can *Treat* the risk by lowering the impact to, say, low/moderate.