Capstone 26/27
Client- Drake Harris, Reverie Resorts Group, LLC

Background:
Reverie Resorts Group (RRG) is a property management company based in Denver CO. The company owns or manages 3 properties in Harbour Island, Bahamas. This tiny island is part of an archipelago known as the "Family Islands" of the Bahamas. Harbour Island is 3.5 miles long and 0.5 mile wide, with approximately 2,000 residents and the 11 boutique hotels and nearly 100 rental homes serving around 96,000 visitors annually.

The Opportunity:
Reverie Resorts Group is seeking to develop solar charging stations, allowing golf carts to be charged at homes and at various public locations on the island, eliminating the demand on fossil fuels, protecting the environment, and extending the life of vehicles.
Today, Harbour Island locals and visitors use golf carts as the main form of transportation. Nearly all the golf carts are gas powered carts. There are 3 types of golf cart owners; rental companies, residents and visitors. The gas carts allow users to drive them sometimes for a week without having to fill up. However, the challenges of gas vehicles are not unlike cars in the U.S. They require mechanical maintenance more often and parts and mechanical expertise is often hard to find. The Island is powered by Diesel generators that receive additional power from a nearby island. But generally, the power to homes, resorts, marinas, and restaurants is derived from fuel. This is expensive, and unsustainable in a fragile marine environment.

Phase 1:
RRG in partnership with Colorado School of Mines is seeking to develop the vision, plan, software and hardware necessary to create a paradigm shift from gas to solar technology for golf carts on island. In the first phase, we wish to explore the "customer journey". This will require building an infrastructure by which customers can engage with solar charging stations. Options include an app or website to show location, availability and pricing for the solar charging stations. Users will include fleet management companies, island residents and visitors. The team will have access to island residents to discuss and evaluate options for an extensible software infrastructure. We will ask questions and seek answers around how users will engage with solar charging stations, how they will pay for the use of them, and the value of this service. With the foundation of the software platform Phase 2 will include the engineering and design of the charging stations by Capstone students at the Colorado School of Mines.