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- 1) An average homeowner wants to install a swimming pool in their yard and play with the location, shape, and costs of the creation of the swimming pool.
- 2) The user is a homeowner or a contractor looking to build a swimming pool or calculate the costs of creating a swimming pool.
- 3) Designing and implementing a swimming pool requires knowledge of architecture or design to accurately install a swimming pool. The user potentially needs to calculate the costs of the water of the swimming pool.
- 4) The program would allow the user to calculate costs of the swimming pool to accurately budget their financial resources appropriately as well as make financial decisions on a future pool they may want to purchase or build, as well as compare other users submitted pool projects or your own saved projects. This will calculate the cost of resources for the pool, concrete, water, conduit, etc...
- 5) The user picks a general shape of their swimming pool out of predefined shapes provided to the user. Then the user provides the measurements of the swimming pool. The program then runs calculations to determine the amount of water in the swimming pool by gallons times the water price. By default the water price is the national average for the United States but the user can choose to insert their own cost of water per gallon. It will also calculate the cost of materials for concrete, conduit, etc... The user can save this data into a project and have multiple versions and types of pools as well as share it to a community pool collection.
- 6) The program would be a website.
- 7) We will need a web server, a database, and a game engine or visual engine like Unity.
- 8) A standard laptop or computer.
- 9) We found some programs that do similar actions, but only calculate the cost of pool creation without much capability for customer customization and don't include just the calculation for water. Also gives a varied range of potential costs that makes it unreliable to use for budgeting.