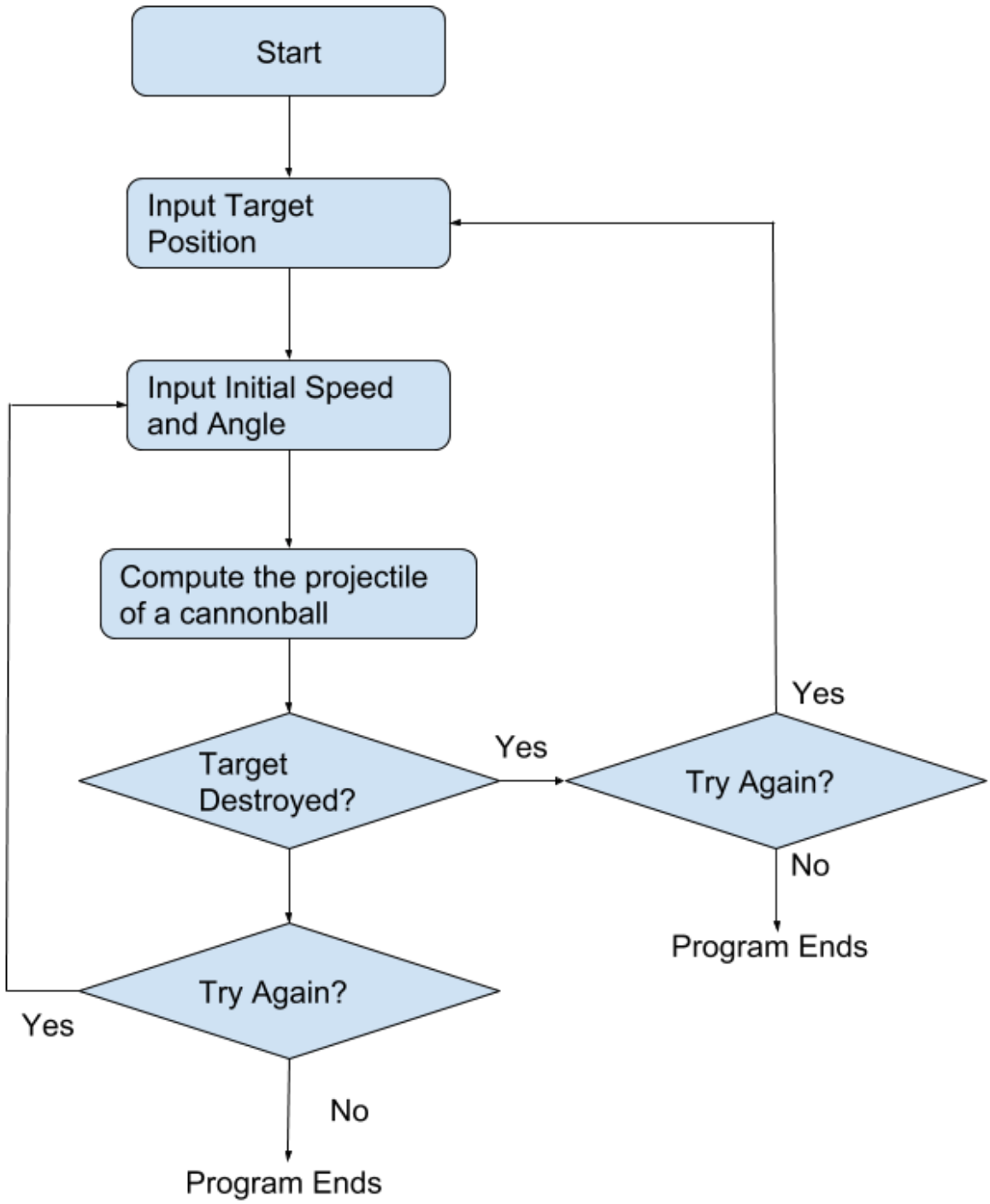
Homework 13

Re-submit Assignment

Due May 12 by 11:59pm **Points** 10 **Submitting** a file upload

Using your previous HW code, we develop an application code of the cannonball shooting. The program should follow the flowchart:



Your code must have:

- Develop a function takes a **Projectile** object, a target position x_T, and a time step, dt, computes the projectile, and returns the difference between the landed position and the target position, $x_L - x_T$.
- The target position must be $x_T > 0$. Throw exception if not satisfied.
- The initial speed must be $50 \leq V_{initial} \leq 100$. Throw exception if not satisfied.
- The initial angle must be $0° < \theta_{initial} < 90°$. Throw exception if not satisfied.
- The target is determined to be destroyed if $|x_L - x_T| < 1$, where x_L is the landed position.
- Use your "**ProjectileWithDrag**" class to create a object.
- You can define the weight of cannonball and the drag coefficient as you like.

Upload all files required to compile your code.