Waterfall – Antikythera

1. *Requirement definition*: (Total Estimated time of completion – 14 weeks)
   1. Calculate the positioning of stars/planets/etc. (main program with calculation methods)
      1. Find formulas from Antikythera research
   2. Database with the different celestial bodies and their related info
      1. Comets/meteor showers, planets, stars, misc.
   3. User will interact with program in some way to calculate positioning/date/etc. of a desired celestial body
      1. GUI will have some way of giving options for the user to choose what they want to see about a certain celestial body
2. *System and software design*: (estimated time of completion – 6-8 weeks)
   1. User Interface
      1. GUI (Visual studio)
         1. Icon and background image related to space
         2. Use of drop downs, check boxes, buttons
         3. More so returning data to user
            1. User requests information about event or celestial body, and then the data for corresponding request is returned
   2. Database (estimated time of completion – 3-4 weeks)
      1. Each relation will have different attributes
         1. Multiple tables for the different celestial bodies (listed attributes)
            1. Stars

Attributes: name, distance our solar system, location

* + - * 1. Planets

Attributes: name, orbit period, orbit speed, distance from the sun, mass, and planet type

* + - * 1. Celestial events

Attributes: name, type, date, location

* + - * 1. eclipses

attributes: date of event, type of eclipse, and locations they occurred.

* 1. Main code (methods/variables/etc.)

1. *Implementation and unit testing*:
2. *Integration and system testing*:
3. *Operation and maintenance*: