

Components

- Main program
- Animal class
- Subclasses (Hyena, Lion, Tiger, Bear)
- File IO module

Data Structures

- Vector
- Map

Interactions

- Main program interacts with the file IO module to read data from input files
- Animal objects are stored in a vector for further processing
- Species count map is updated based on animal data
- Report is generated by writing species counts to an output file

Sample Design Flow

- Initialize vector for storing animal objects
- Read input files using file io module
- Create animal objects and add them to the Vector
- Update species count map
- Generate report by writing counts to an output file
- Generate report by writing counts to output file
- Close input and output files.