In this game,there are 8 basic components which are responsible for their own specific tasks(pretty much related to their names).They are player component,alien component,bomb component,rocket component,entity component which determines the position of a compound component,health component,score component and render component which is in charge of rendering.Those 8 components are all inherited from a abstract class named IComponent.The basic components in the system can be used to compose different new components.A ObjectManager class which is responsible for creation,deletion,query of components and post messages among different components.Because different components in the system communicate with each others only through passing messages or querying interfaces.A collision data base which is used for handling collision detection and a component data base which contains all basic component info and all components in the game are isolated from outside in the ObjectManager.In addition,A parameterNode class and member functions of basic components are designed for parsing and loading data from files or scripting in order to separate design and programming,but they are not implemented yet.So in the code,I hardcoded instead of reading from files.But it totally supports further development.