

**Coursework Name:** Asteroid Attac

**Summary:** Dodge incoming asteroids and meteors for as long as possible to get the highest score! Use up and down arrow keys to move the ship and click a mouse button to leap forward, but you only have 60 chances to leap.



Mandatory (compulsory) requirements:

1. Appearance looks OK and appropriate ✓
2. Provide multiple states/stages ✓
3. Use the tile manager appropriately – changing at least one tile ✓
4. Improve your user-controlled moving object ✓
5. Provide multiple different automated moving objects ✓
6. Provide interaction between moving objects, or a moving object and background ✓
7. Display meaningful changing text on the screen ✓
8. Program works well and looks good ✓

Optional requirements:

- A. Load some data ✓
- B. Advanced data loading ✓ – High scores
- C. Data saving ✓ – Sorted high scores
- D. Save/load non-trivial state
- E. Advanced (e.g. animated/scrolling) background
- F. Animated appearance of user controlled object and/or automated objects ✓ – animated flames
- G. Displayable object images ✓ – All automated objects are images
- H. Creating new displayable objects during the game ✓ – Different objects appear for each stage
- I. Allow user to enter text which appears on the graphical display ✓ – Ship number
- J. Display text aligned with moving objects ✓ – number displayed on spaceship
- K. Complex intelligence on an automated moving object ✓ – Meteor follows players up/down movement
- L. Impressive intelligence on an automated moving object
- M. More complex tile manager interaction ✓ – every mouse click updates the tiles to show amount of leaps user has left
- N. Implement a hierarchy of moving object classes ✓ – multiple subclasses of asteroids with different speeds
- O. Non-trivial pixel-perfect collision detection
- P. More complex collision detection
- Q. Really complex collision detection
- R. Polymorphic state structure
- S. Implement full pause facility ✓
- T. Sellable quality
- U. Another advanced feature
- V. A second advanced feature