App/Game Design Document (Concept art below!!)

Team Name: Team Best Team.

Team Members: Trey Hernandez and Garrett Swinney

- Title Page: (Drawn on Concept Art pg.1)
- App/Game Description/function – What problem does it solve?
    - This game is constructed for those who dream of saving the universe and slamming villains in the process. As Dr. Burton spoke in his presentation, games serve as a way to escape from stress of life and add entertainment to help some get through another day. I hope this game will serve that purpose to those it reaches and help them feel like the hero in their universe in the process. -
- Rough plot/design:
    - “Humanity has reached the year 2250 and science has achieved astronomical advancements, such that we have explored our solar system thoroughly and have even reached such speeds to travel to our neighbor galaxy, Andromeda. An excited humanity, we dauntlessly face the danger of such a distance in hopes for the promise of undiscovered fantasies and new minerals waiting to be harvest in our market. But, when we receive a distress signal from those on mission, we quickly realized we opened an intergalactic can of worms. This alien race knows who we are and are coming to attack. Our only hope is to meet them in space with a can of whoopin’ like no alien race has seen before.”
- App/Game Flow
    - Concept/Genre/Target Audience
        - 4 spaceships to choose from, each with their own design and specialties
        - This game is a horizontal shoot ‘em up side-scroller in which the enemies enter the battlefield from the right side of the screen.
        - Many games of this type are targeted to teenage/young adult audiences and contain violent sequences of action and intensity. While this contributes to the experience of the game, this more cartoonish style of a side-scrolling shooter is more family friendly and safer for a younger audience. With that, this game is targeted towards kids as young as six or seven but still keeps some classic elements entertaining teenagers and young adults as well.
    - Look and feel
        - The look and feel of this game is a little unique in its artistic style. It will keep classic elements such as power ups and amazingly awesome weaponry, but will take a more cartoonish approach with its artwork.
- App/Game Art outline
    - Key assets and their development: Main menu (play and buttons to these three other menus: High Score menu, Settings page (in development), HUD menu.) Concept art for menus shown below.
- Mechanics

    - Rules – The object of the game is to accumulate the highest score possible without being hit or running into objects. With that, the player will be allowed two hits by and object or incoming missile before termination and a mission failure.
    - Physics – each spaceship will have its separate flight dynamics (hopeful features include: weaponry firing rate, agility (speed of travel on screen), attack strength, defense)
    - Movement in app/game
        - Basic movement will begin with the main menu (where the user can press play, see high scores, access the HUD, or look at settings). Each button will have its corresponding window and behave according to its type ("play" will run gaming portion or "high scores" will see high scores, etc.)
    - Interaction with objects
        - Power ups-can be absorbed upon contact and will be activated when the associated button on screen pressed
    - Combat
        - Villains (enemies) shoot back and can harm the spaceship
        - Asteroids spawn and move across the play field. They are obstacles that can be shot (and contain power ups) (can damage spaceship upon contact)
    - Economy
        - Permanent upgrades to ships can be made with an accumulation of points from gameplay (money made by shooting enemies and objects in sky then collecting coins) These upgrades include: weaponry firing rate, agility, attack strength, and defense
    - Screen Flow – Dynamic background (in the form of a loop) that travels from the right side of the screen to the left as progress is made during the game. Screen flow will be constant. (Device will be held horizontally)
- Interface
    - HUD (Drawn on Concept Art pg.2)
    - Control/Commands
        - Analogue joystick for basic movements
        - Yellow button for special power-ups
        - Blue button for basic spaceship weaponry attacks
    - Audio, Music, Sound Effects
        - Select music during play to be determined
        - Necessary audio required for an explosion, or the trigger of a laser
- Hardware Specifications –should work across all devices: emphasis on production for the apple store but ultimately published across all app store options available
- Project Timeline
    - Weeks 1-2: transfer drawings from paper to computer (spacecraft and backgrounds), research audio available, and begin research/coding on menu and game layout
    - Weeks 3-4: Narrow down options for audio/solidify choices for sound, continue/wrap up certain drawings (spacecraft/backgrounds), apply knowledge on coding menus to complete layout of application

    - Weeks 5-6: Must finish drawing on the computer and have menus designed by week 5. Incorporate basic gaming algorithms for gameplay and begin merging audio, visual, and code in its game form
    - Weeks 7-8: Continue to finish application of choice audio, uploading of .png files and other miscellaneous graphics (buttons, icons, spacecraft, option bars, etc.)
    - Week 9: Finish up project (reserved for specific focus on things that MUST be accomplished) –test project and manipulate code accordingly to fit group desire (speed of moving objects, color correction, etc)
    - Week 10: Focus on finishing and making it look smooth
- Additional Ideas
    - Possibly another game mode, “EXTREME”, where difficulty is harder
    - Adding additional backgrounds that can be switched out
    - Adding unlockable features or achievements (like backgrounds or new battleships)
    - Adding a health bar (in conjunction with the Defense attribute to ships)