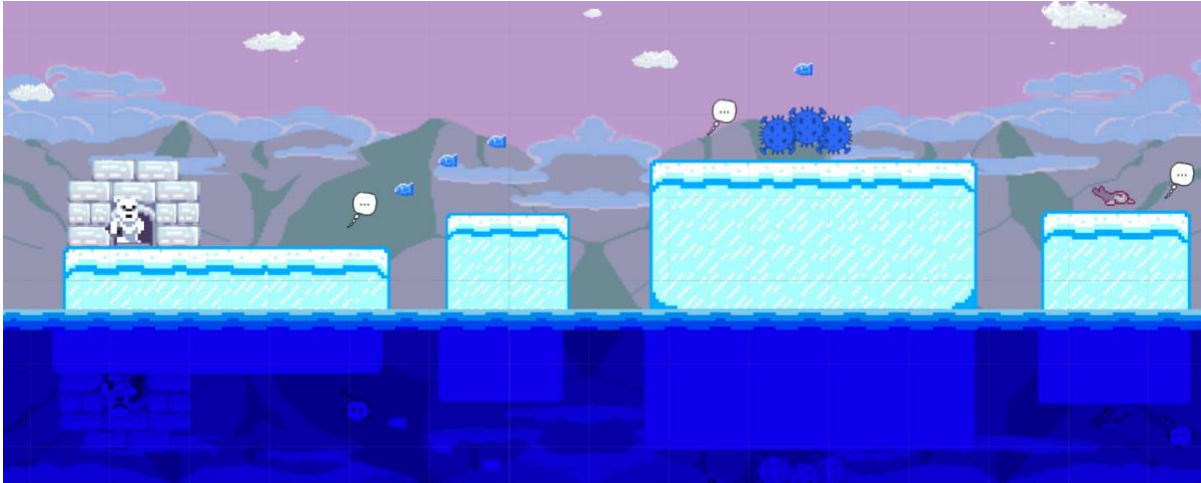# Polar Bear: A Day in the Arctic

Game Design Document (GDD)

V5.0 GOLD MASTER

Polar Bear: A Day in the Arctic Gold Master Milestone Level One Screenshot

Game Identity / Mantra

Because of the global warming and human activities, the Arctic ice is quickly melting, and polar bears are endangered. The protagonist is a young polar bear who will discover the beautiful but crushed Arctic world and go through all the challenging tasks in order to survive the hottest summer in Arctic.

Ice Shelter for the Polar Bear

Single player, side-scrolling, platformer, survival, adventure, pixel art, natural science.

Narrative driven design helps the player discover the story through exploration.

Design Pillars

☐ Chromatic gameplay space with dreamlike and simplistic pixel-art background.
☐ Horizontal and vertical navigation through levels (mainly horizontal).

☐ Narrative delivered via the UI dialogue box when the player triggers the plot in certain gameplay areas in a non-intrusive manner.

Polar Bear: A Day in the Arctic Color Palette

Genre/Story/Mechanics

Genre/Story

Reality-reflected, lighthearted adventure and survival genre when polar bears are endangered because of global warming and human activities.

The hero is a young polar bear who tries to discover the outside world and to survive by itself in the summer in the Arctic. Throughout the gameplay, the player could experience a simulated daily life of a polar bear and discover what's in the beautiful Arctic world.

Global climate change causes the melting of sea ice habitat; humans' oil exploration pollutes the sea water and animals; chemicals released form industries harm the polar bear's health; There're also dangerous creatures under the sea…The protagonist has to go through all these challenges to survive.

Style Reference Images

Visual style is simplistic pixel art with the use of certain iconic colors to polish the gameplay area.

Polar Bear

Melted Ice / Sea Water

Mechanics

2D side-scrolling camera, horizontal and vertical movement (mainly horizontal), realistic natural gravity, interactive elements with predation of food, walking on the ice, swimming in the sea, and hiding hazards.

Features

Two major levels, one on the land and one in the water, with completely different gameplay environments and player experiences. Two levels are connected by guiding the player to jump into sea and enter the second level.

Narrative – Tutorial and Storyline

Tutorial narrative delivered via UI dialogue box, messages in gameplay area, and intuitive gameplay. Story narrative delivered via the dialogues.

Gameplay Hint Messages

Epic Encounter Scene

There's one epic encounter level. After listening to the last words of a sick seal who is polluted by the oil, the player would go through a path where tons of oil and trash flow down. Follow by conquering the final epic encounter, the player successfully completes all the challenges and returns back to the ice shelter.
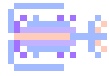

Epic Encounter Scene (Partial)

Leaked oil

Adorable Marine Creatures

Character and game object design is cute and adorable to give the player a lighthearted gaming experience. There are lots of little marine animals swimming in the underwater scene to decorate the gameplay space.
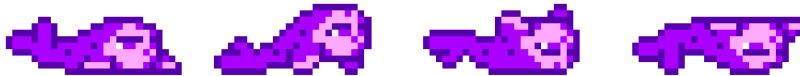

Little Fish

Plankton

Hazards

The "enemies" are all kinds of natural disasters that polar bears face and aggressive marine animals, such as melting sea ice, polluted sea water and animals, and toxic pollution which comes from human industries. The player loses health when touching dangerous elements.

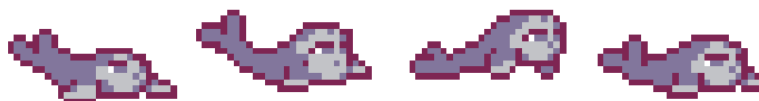*Polluted Seal*

Polluted Air / Virus

Dangerous Marine Animals

Collectables

The collectables are fish coins and healing items. The player could collect blue fishes to increase the score number and eat healthy seals to get heal values.
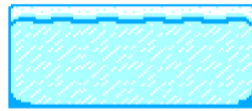

Fish Coin Collectable

Health Seal Health Collectable

Elevators

Elevators and platforms that help the player reach different locations in the gameplay area.

Floating Ice / Elevator

Ladders

The player could use the algae ladder to move in a vertical line in underwater scene.

Algae Ladder
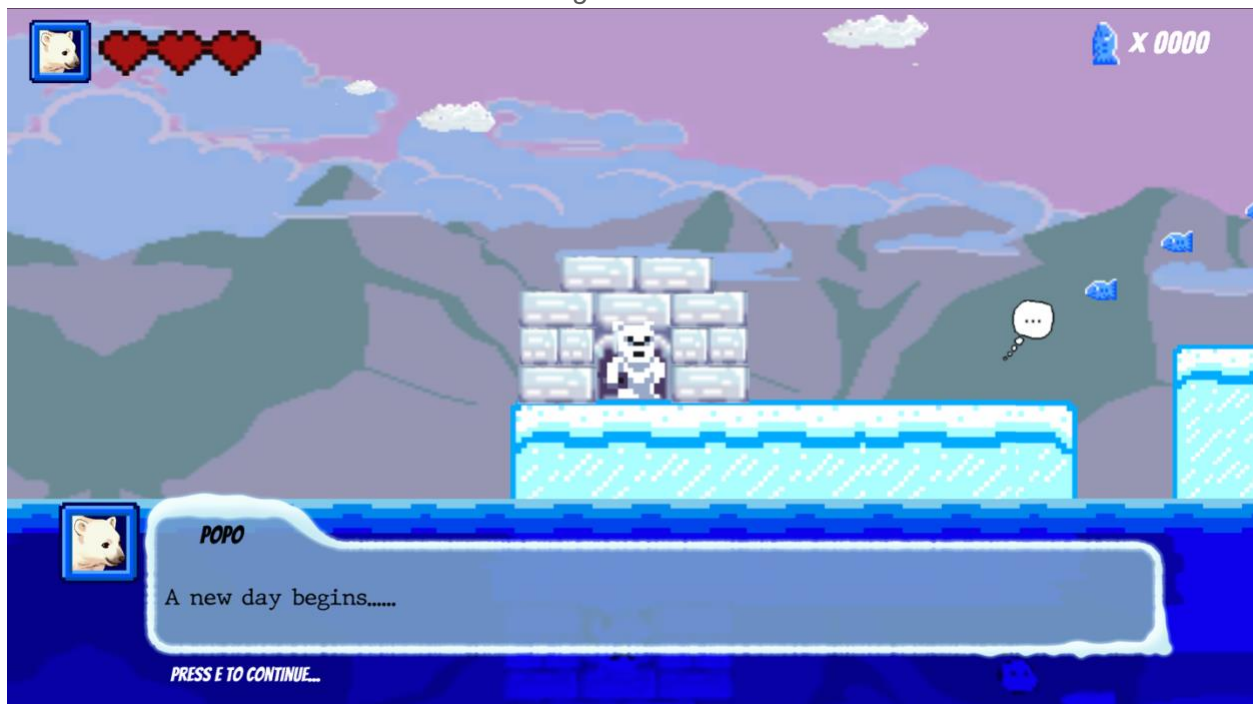
In-Game User Interface Example

Interface

- ☐ A multi-segment health bar which could increase or decrease due to the player's interactions with pickups or dangerous elements in the game.
- ☐ Feedback given to the player on dangerous gameplay elements, such as polluted water and air.
- ☐ Feedback given to the player on health pickups, such as healthy seals.
- ☐ The visible score that the player could gain when collecting coins (fishes).

- **Overall UI/UX Flow:**
  - Unity Splash Screen
  - Team Splash Screen
  - Game Start Screen
    - Start Level One
    - Quit Game
    - Credits Screen
  - Level One
    - Jump to the water to the second Level
  - Level Two
    - End game
  - Credits Screen
  - Return to Game Start Screen
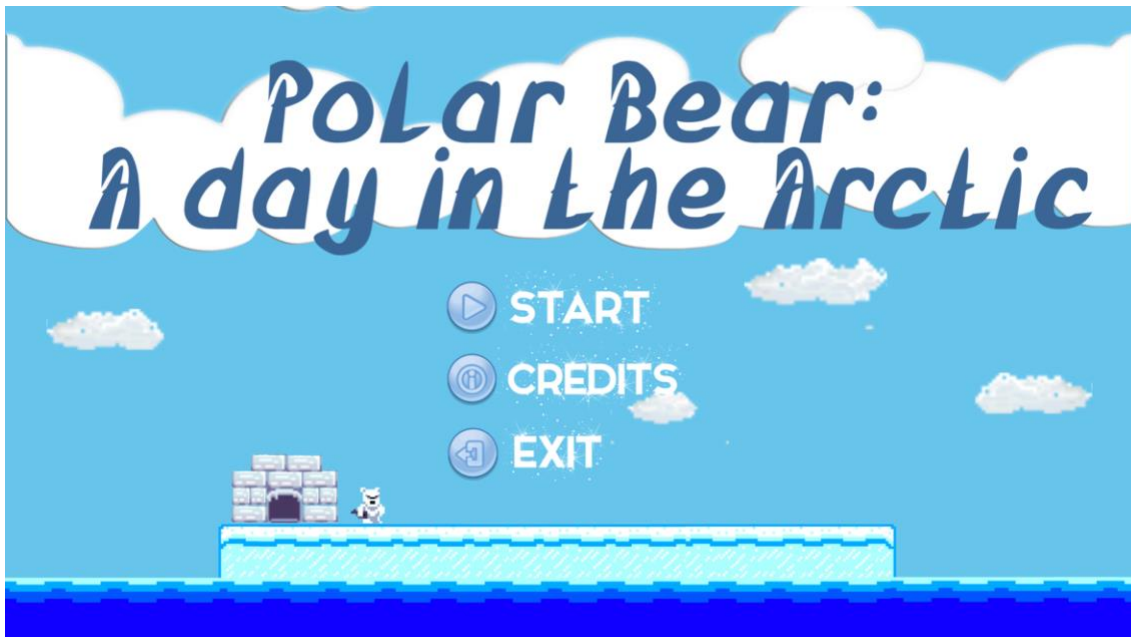
Game Start Screen

Team Splash Screen Art

Game Credits Screen

Game Icon Art

Art Style

- ☐ Chromatic gameplay space with simplistic background elements.
- ☐ Interface art style is clean and clear.
- ☐ Beautiful natural environment of the Arctic land, illustrating the habitat of polar bears and other Arctic lives. Sky, ocean, clouds, mountains, with white melting sea ice.
- ☐ Gameplay areas will be higher detail.
- ☐ Adorable comic design for characters.
- ☐ Clean pixel inspired art style to show the beautiful Arctic and how it gradually melts away.

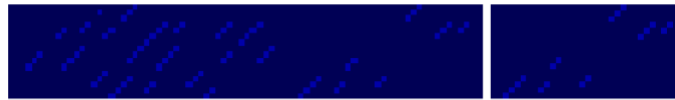*Pixel Background Clouds Design*

Frozen Trees

Arctic Mountain Game Background Environment

Sea Texture Design

Game Fonts:

Snowinter free font

Frozen Ice free font

JMH Typewriter free font

28 Days Later free font

Audio

- ☐ player_jump.wav
- ☐ player_walk.wav
- ☐ player_hurt.wav
- ☐ pickup_coin.wav
- ☐ pickup_seal.wav
- ☐ pickup_cheackpoint.wav
- ☐ player_die.wav
- ☐ water_splash.wav
- ☐ outdoor_theme.wav
- ☐ underwater_theme.wav
- ☐ game_over.wav
- ☐ TalkingCuteChiptune.mp3

Asset Database

ANIMATIONS	
NAME	**FILE TYPE**
Player_die.anim	Animation
Player_idle.anim	Animation
Player_jump.anim	Animation
Player_walk.anim	Animation
Seal_move.anim	Animation
Fish_Dangerous_OpenMouth.anim	Animation
flag_move.anim	Animation
pollutedSeal_move.anim	Animation
Seal_CreditScreen.anim	Animation
AUDIO	
NAME	**FILE TYPE**
player_jump	wav
pickup_coin	wav
player_die	wav
break_ice	wav
player_hurt	wav
outdoor_theme	wav
player_walk	wav
water_splash	wav
pickup_seal	wav
TalkingCuteChiptune	mp3
game_over	wav
underwater_theme	wav
outdoor_theme	wav
pickup_checkpoint	wav
MATERIALS	

NAME	FILE TYPE
Lights_off.mat	mat
Lights_on.mat	mat
Panal_default.mat	mat
Panal_light.mat	mat
water_material.mat	mat
water_shader.shadergraph	shadergraph
Water.renderTexture	renderTexture

PREFABS	
NAME	FILE TYPE
BlackScreen.prefab	prefab
Dialouge.prefab	prefab
HealthBar.prefab	prefab
InvisImage.prefab	prefab
GlobalObject	prefab

Fonts	
NAME	FILE TYPE
FROZEN ICE	otf
Snowinter-Free-For-Personal-Use	otf
JMH Typewriter	otf
28 Days Later	otf

SPRITES	
NAME	FILE TYPE
Seal	png
Snow_Particle	png
sea	png
Arctic_Mountain_Background	png
Blue_Virus	png
Ice Tiles_16 x 16px	png
portrait_player	png
scarfy_the_penguin_gfx	png
Player_dead	png
Player_jump	png
Player_walk	png
Player_idle	png
clouds	png
Button	png
underwater	png
arrow	png
Dialogue_sign	png
healthbar	png
Fish_dead	png
flags	png
Grass_ladeer	png
Portrait_seal	png
Grass_thorn	png
grass	png
Ice_underwater	png

tree	png
oil	png
oilleak	png
Sea_texture	png
Splash_logo	png
Water_texuture	png
Seal_ill	png
MarineCreatures	png
Ice_thorn	png
Dialogue_frame	png
Danger_sign	png
clouds_startscreen	png
Blue	png
Fish_dangerous	png
zoo-plankton	png
Game_Icon	png

SCRIPTS	
NAME	**FILE TYPE**
Ladder_climb	cs
QuitOnClick	cs
Player_Health_Segmented	cs
GameManager	cs
GameSceneManager	cs
PlayerAudio	cs
PlayerHealth	cs
PlayerMovement	cs
TestDoc	txt
DialogueManager	cs
DialogueTrigger	cs
CameraMovement	cs
CheckPoint	cs
HealValue	cs
DamageDealer	cs
ActivationTrigger	cs
DEActivationTrigger	cs
Level_Change	cs
Floater	cs
Patrol	cs
Patrol_NOFLIP	cs
LoadSceneOnClick	cs
PlaySound2D	cs
ActivationTriggerOnce	cs
GlobalControl	cs
DEActivationTriggerOnce	cs
quitOnEscape	cs

SCENES	
NAME	**FILE TYPE**
Game_Start	unity

Level_3	unity
Level_Underwater	unity
Level_tutorial	unity
Credits	unity

Development Roadmap

Platform: Windows PC   **Audience:** Everyone

Milestone 1: 09/09/20 GDD 1.0
Milestone 2: 09/30/20 PROTOTYPE
Milestone 3: 10/14/20 MIDTERM
Milestone 4: 11/19/20 BETA
Milestone 5: 12/09/20 GDD FINAL

Launch Day: 12/09/20 GOLD MASTER