Assignment Description

- As a team, create or re-create a 2D game. Everyone will contribute code and be responsible for at least one key feature.
- Individually, investigate what is needed to implement the key feature you are responsible for. Implement the feature.
- As a team, use git to manage the development of this project. Each team member integrates their feature into the project.
- Document your process as you work throughout the assignment, such as drawings and notes you make as you problem-solve the programming challenges associated with implementing your feature.

Important points:

- Process work (individual)
- Merging features.
- Personal branches
- Main branch.
- Code comments
- formatting

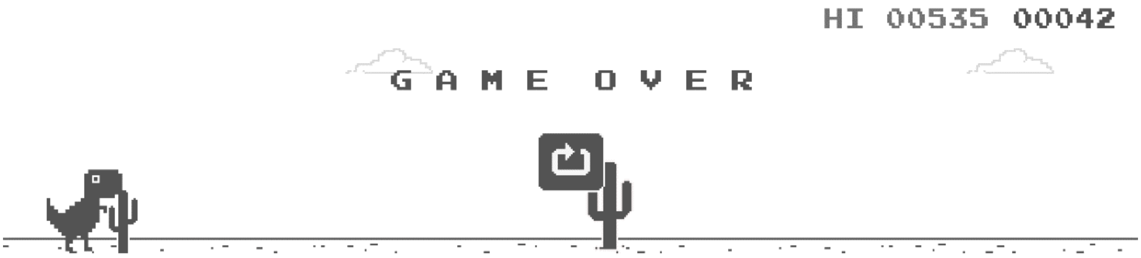
Selected Game:

What is a dinosaur game?

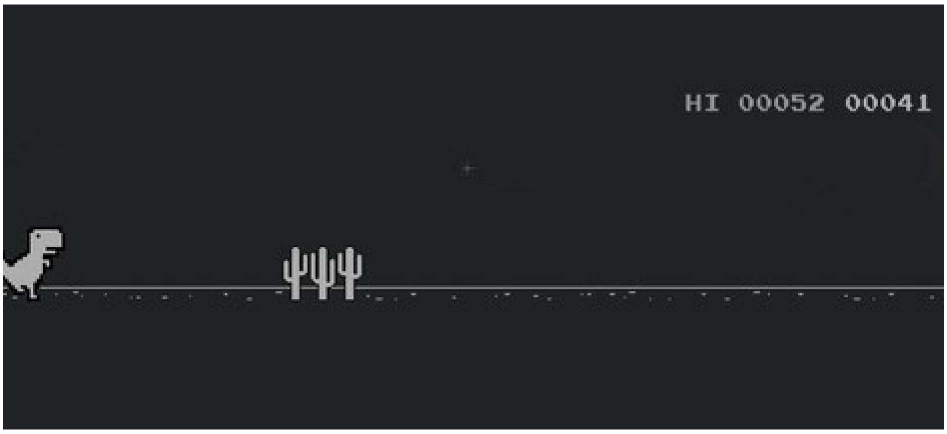
- The Dinosaur Game (also known as the Chrome Dino) is a browser game developed by Google and built into the Google Chrome web browser. The player guides a pixelated Tyrannosaurus rex across a side-scrolling landscape, avoiding obstacles to achieve a higher score. The game was created by members of the Chrome UX team in 2014.

- During the game, the dinosaur continuously moves from left to right across a black-and-white desert landscape, with the player attempting to avoid oncoming obstacles such as cacti and pterosaurs by jumping or ducking. Pressing space, ↑, or tapping the dinosaur on mobile devices will cause the dinosaur to "leap", while pressing the ↓ key will cause the dinosaur to "crouch". As the game progresses, the speed of play gradually increases until the user hits an obstacle or a pterosaur, prompting an instant game over.

https://en.wikipedia.org/wiki/Dinosaur_Game

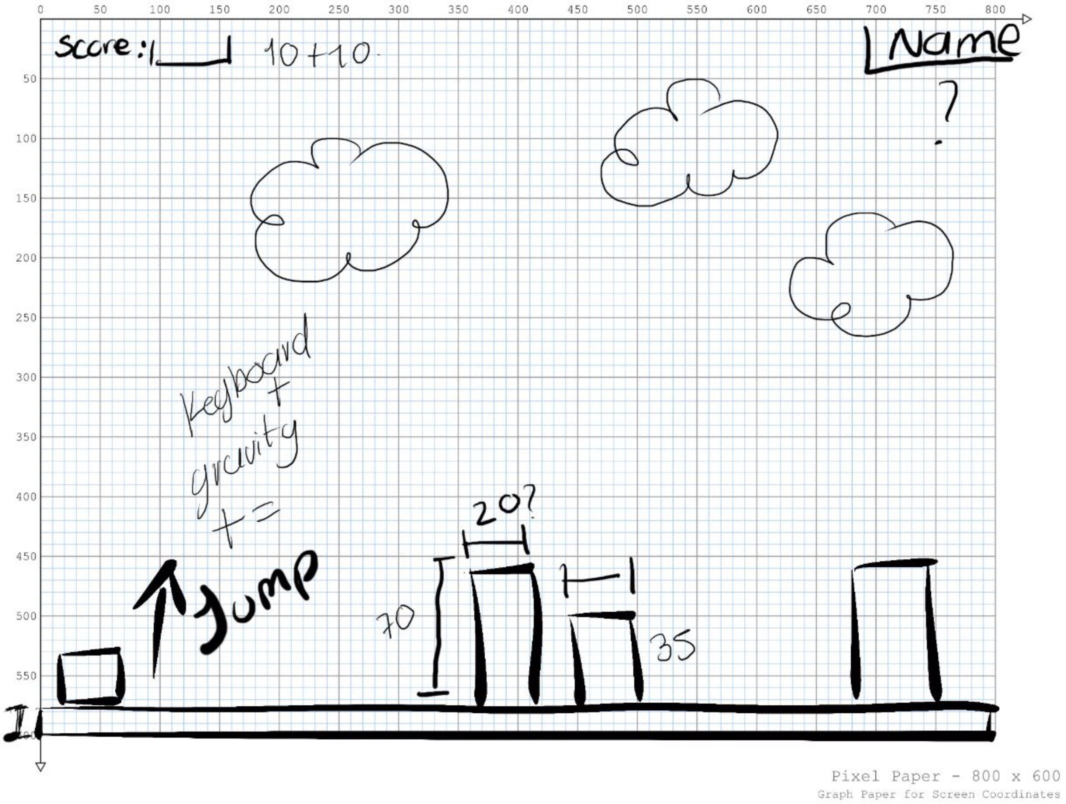


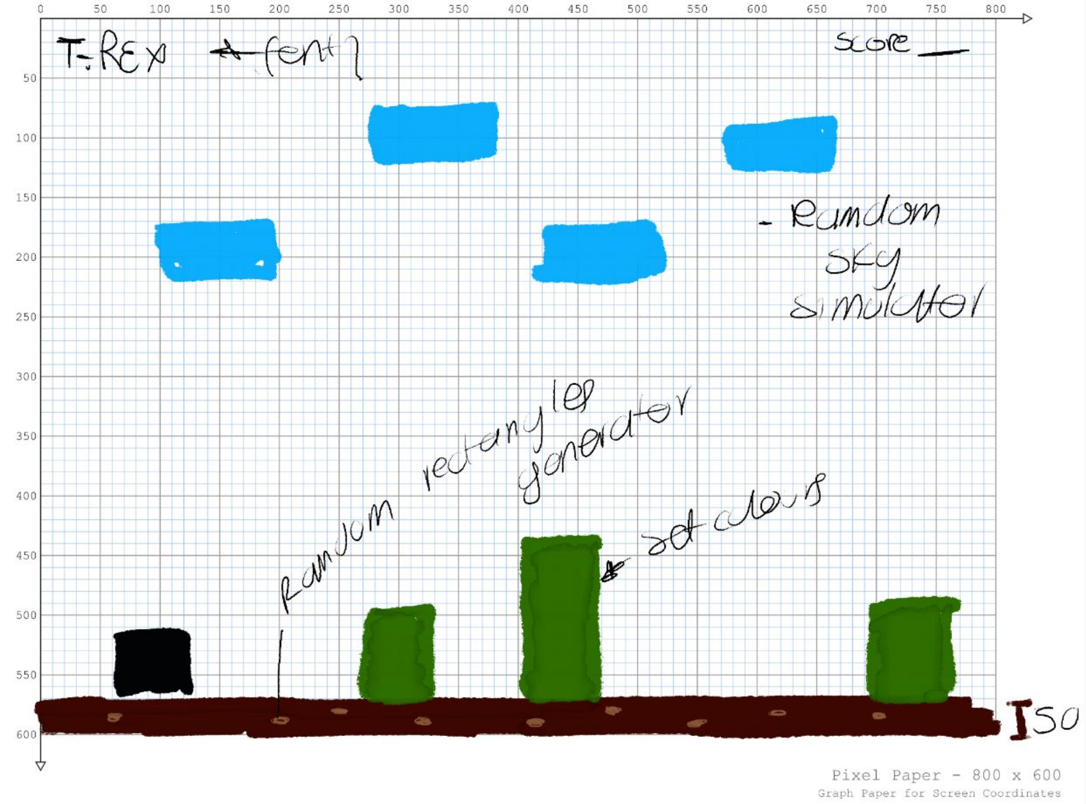
Graphics at night, landscape dark.



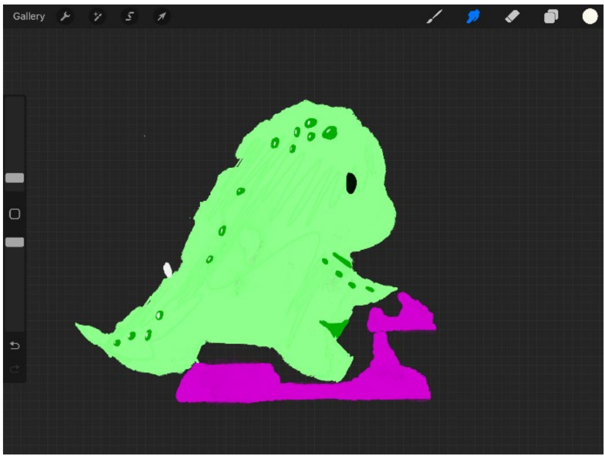
The game has simple black and white texture textures, is a progress game with obstacles. Just 1 opportunity.

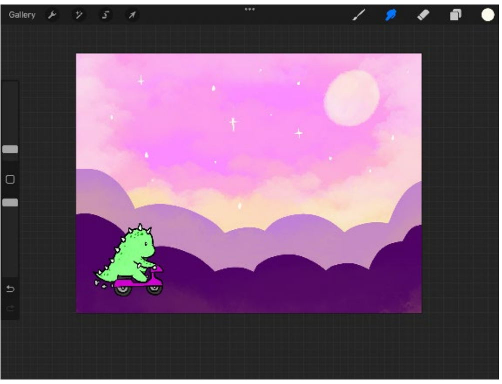
Prototype, check for score, name of the game, size, color, etc.

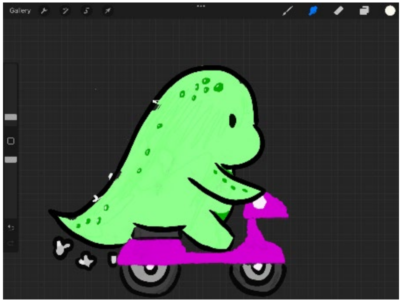


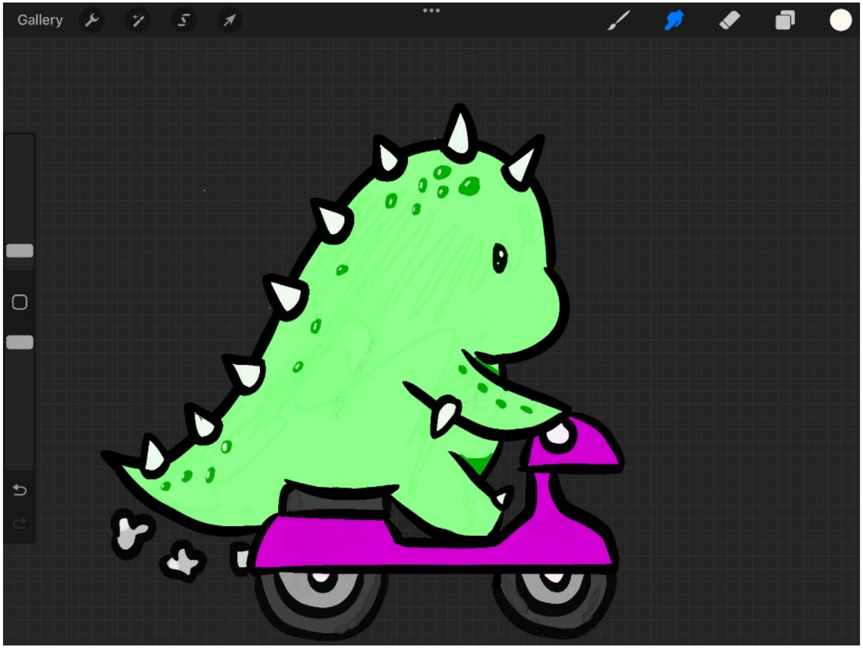


First prototype of textures:





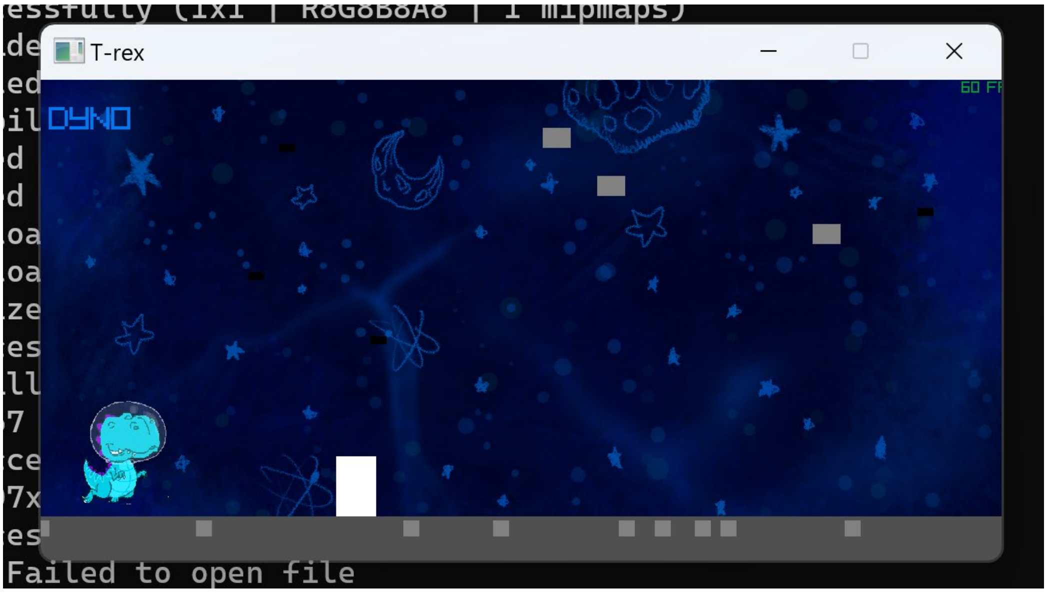




Second prototype (idea) for textures

I decided to work with the second prototype.

“Final result” programing with textures:



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I used random recs generated to create a simulation of “movement of camera”

I have 2 obstacles with different speeds (this are the collision check)

```
  Random random = new Random(3);
  int obstaclespeed = 4;
  int obtspeed2 = 2;

  for (int i = 0; i < obstacle0.Length; i++)
  {
      obstacle0[i].X -= obstaclespeed;

      if (obstacle0[i].X <= -obstacle0[i].Width)
      {
          obstacle0[i] = new Rectangle(random.Next(2200), 470, 50, 80);
      }
  }
```

```
for (int i = 0; i < obstacles2.Length; i++)
{
    obstacles2[i].X -= obtspeed2;
    if (obstacles2[i].X <= -obstacles2[i].Width)
    {
        obstacles2[i] = new Rectangle(random.Next(2200), 475, 35, 100);
    }
}
```

The other aspecto is the map creator, I create sky, and a base with texture, with the same idea of random generator.

I add a extra windown for the player info and the gravity and movement of the dyno.

Set the basic structure

```
public static Texture2D Dyno;
 public static Rectangle DynoModel = new Rectangle (0,0,110,130); (size)
 static string newDirectory = "C:\\Users\\dg01n\\OneDrive\\Escritorio\\game
design\\Game dev foundations\\T-rexTest"; (found the texture)

 Vector2 position;
 Vector2 velocity;
 Vector2 jumps;
 bool hasTouchedGround = true;
```

draw the dyno with the texture:

```
public void DrawDyno()
 {
     Raylib.DrawTextureRec(Dyno, DynoModel, position, Color.WHITE);
 }
```

Set the key space to jump

```
Applygravity();
if (Raylib.IsKeyPressed(KeyboardKey.KEY_SPACE) && hasTouchedGround == true)
{
    DoJump();
    hasTouchedGround = false;
}
position += velocity;
```

bool for avoid doble jumps

```
float dynoY = position.Y;
 if (dynoY > 400)
 {
     position.Y = 400;
     velocity.Y = 0;
     hasTouchedGround = true;
 }
```

Main program Update

```
static void Update()
 {
     Raylib.BeginDrawing();
     Raylib.DrawTexture(background, (int)backposX, 0, Color.DARKBLUE); (background texture)

     DrawObstacles(); //obstacles
     movement();
     Drawmap(); //map (sky and base)
     Font();
     collision();
     jumps.update(); (dyno update)

     Raylib.DrawFPS(1150, 0);//POSITION DRAW FPS
     Raylib.EndDrawing();
 }
```

Draw the textura with a perso font

```
static void Font()
 {
     //Console.WriteLine(Directory.GetCurrentDirectory());
     Raylib.DrawTextEx(FontDyno, "DYNO", new Vector2(10, 30), 40, 2, Color.BLUE);
 }
```

Get position of the archives

```
static string newDirectory = "C:\\Users\\dg01n\\OneDrive\\Escritorio\\game design\\Game dev foundations\\T-rexTest";

Directory.SetCurrentDirectory(newDirectory);
 FontDyno = Raylib.LoadFont("DynoFont.ttf");
 background = Raylib.LoadTexture("background.gif");
```