

Mobile Compatible Games



What is our GOAL for this MODULE?

We will make the Trex game Mobile Compatible.

What did we ACHIEVE in the class TODAY?

- Adjusted the game dimension to fit all screen sizes.
- Made the game touch friendly for smartphones.
- Hosted the game online on GitHub.
- Built a web wrapper around the game to generate an APK file.

Which CONCEPTS/ CODING BLOCKS did we cover today?

- OOP concept revision added more functionality.
- Dimensions
- Touches for smartphones
- Generating Apk files

How did we DO the activities?

In the previous class, you created a **box** class and defined functions to move the box on the canvas. Here, you create a **Student** class that can store the information of a student and display it.

1. Create a **Student** class in the **student.js** file. This class will have attributes such as **name**, **age**, and **grade** of the **Student** in the **constructor()** function. This will also have a method to display these details on the console.

```
class Student
{
  constructor(name,age,grade)
  {
    this.name = name;
    this.age = age;
    this.grade = grade;
  }

  display()
  {
    console.log(this.name);
    console.log(this.age);
    console.log(this.grade);
  }
}
```

2. Create the object of the student in the **sketch.js** file and call the **display()** function using the name of the object, which in this case is, **s1.display()**.

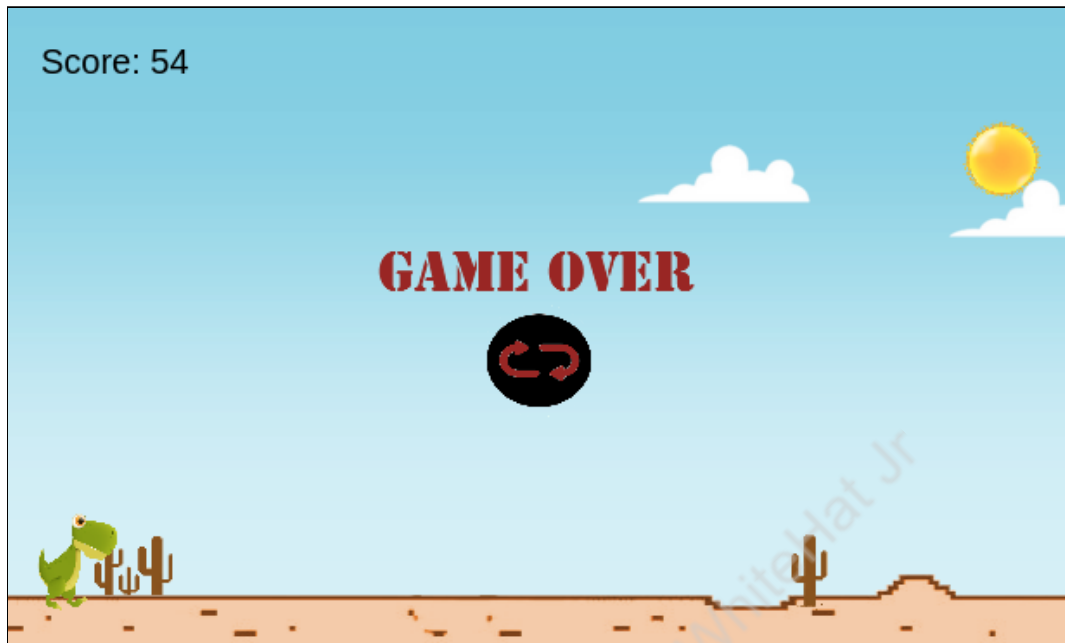
```
var s1;  
  
function setup() {  
  createCanvas(400,400);  
  
  s1 = new Student("john",12,6);  
  s1.display();  
}
```

Output:

john
12
6

3. Make T rex game mobile compatible by adjusting the game dimensions to fit all the screen sizes. Adjust the width and height of sprites according to the screen size.

```
function setup() {  
  createCanvas(windowWidth, windowHeight);  
  
  sun = createSprite(width-50,100,10,10);  
  sun.addAnimation("sun", sunAnimation);  
  sun.scale = 0.1  
  
  trex = createSprite(50,height-70,20,50);  
  
  trex.addAnimation("running", trex_running);  
  trex.addAnimation("collided", trex_collided);  
  trex.setCollider('circle',0,0,350)  
  trex.scale = 0.08;  
  
  invisibleGround = createSprite(width/2,height-10,width,125);  
  invisibleGround.shapeColor = "#f4cbaa";  
  
  ground = createSprite(width/2,height,width,2);  
  ground.addImage("ground",groundImage);  
  ground.x = width/2  
  ground.velocityX = -(6 + 3*score/100);  
  
  gameOver = createSprite(width/2,height/2- 50);  
  gameOver.addImage(gameOverImg);  
  
  restart = createSprite(width/2,height/2);  
  restart.addImage(restartImg);
```



4. Check if there is a touch or a tap as the phone doesn't have a space key to make the Trex jump.

```

if (gameState===PLAY){
  score = score + Math.round(getFrameRate()/60);
  ground.velocityX = -(6 + 3*score/100);

  if((touches.length > 0 || keyDown("SPACE")) && trex.y >= height-120) {
    jumpSound.play( )
    trex.velocityY = -10;
    touches = [];
  }

  trex.velocityY = trex.velocityY + 0.8

  if (ground.x < 0){
    ground.x = ground.width/2;
  }

  trex.collide(invisibleGround);
  spawnClouds();
  spawnObstacles();
}

```


5. Host game on GitHub:
 - Create a new repository.

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository](#).

Owner

Repository name *

 whitehatjr

 /

trex

Great repository names are short and memorable. Need inspiration? How about [super-umbrella](#)?

Description (optional)

Chrome's trex game created using p5.play

☒ Public

Anyone can see this repository. You choose who can commit.

☐ Private

You choose who can see and commit to this repository.

Skip this step if you're importing an existing repository.

☒ Initialize this repository with a README

This will let you immediately clone the repository to your computer.

Add .gitignore: **None**

Add a license: **None**

Create repository

- Upload the Trex project files on GitHub.

Chrome's trex game created using p5.play

Edit

Manage topics

1 commit

1 branch

0 releases

1 contributor

Branch: master

New pull request

Create new file

Upload files

Find File

Clone or download

whitehatjr Initial commit

Latest commit 1b55a9a now






README.md Initial commit now

README.md

trex

Chrome's trex game created using p5.play

trex /



Drag files here to add them to your repository

Or choose your files

Commit changes

Update Slingshot.js

Add an optional extended description...

☒ Commit directly to the `main` branch.
☐ Create a new branch for this commit and start a pull request. [Learn more about pull requests.](#)

Commit changesCancel

- Go to Settings of the repository.

whitehatjr / trex

Watch 0

Star 0

Fork 0

Code

Issues 0

Pull requests 0

Projects 0

Wiki

Security

Insights

Settings

Chrome's trex game created using p5.play

Edit

Manage topics

2 commits

1 branch

0 releases

1 contributor

Branch: master

New pull request

Create new file

Upload files

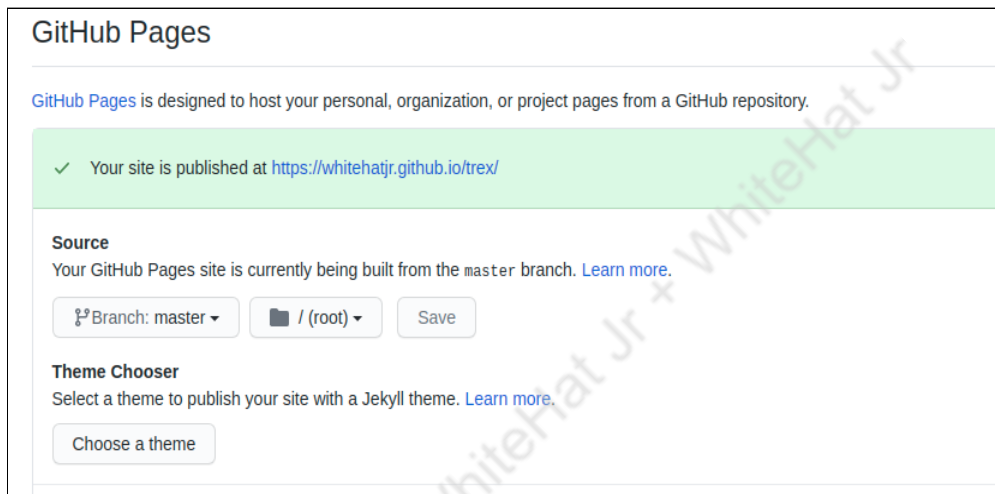
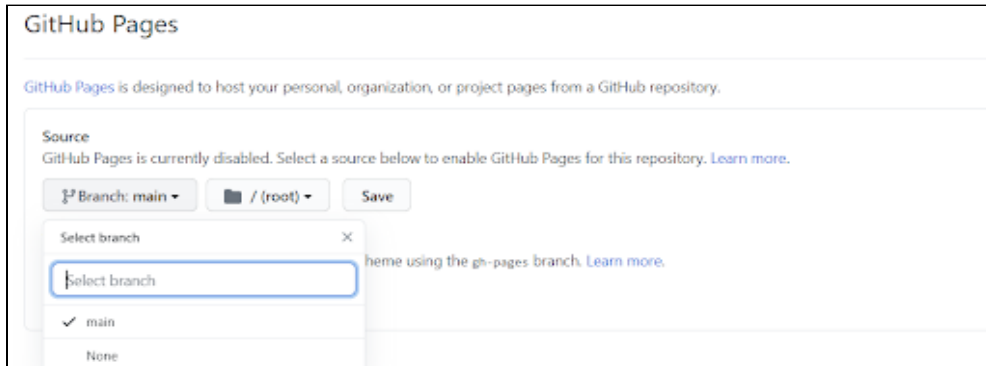
Find File

Clone or download

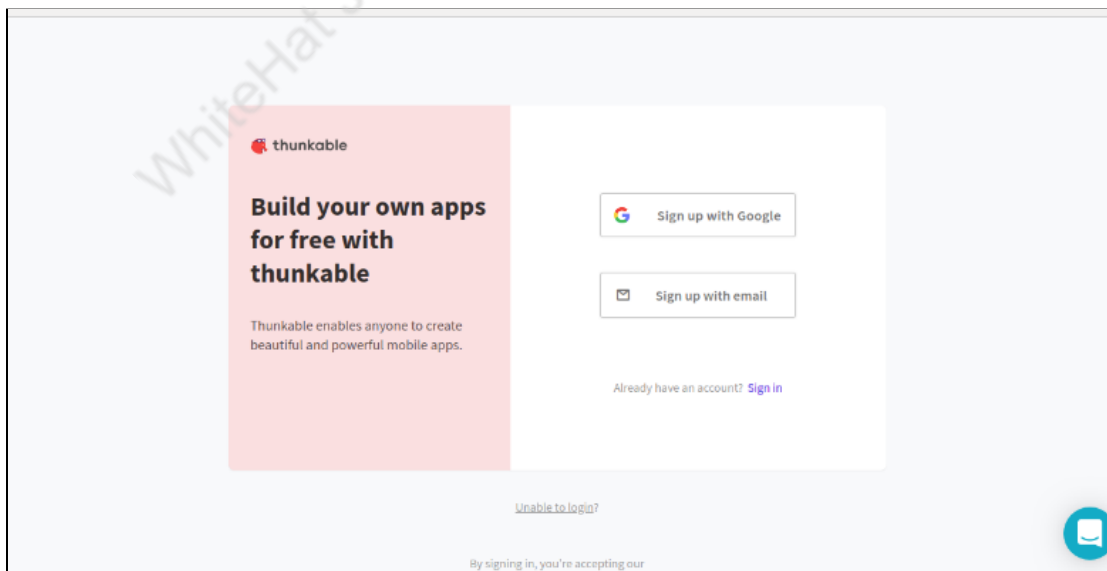
whitehatjr Upload files from created using p5 editor

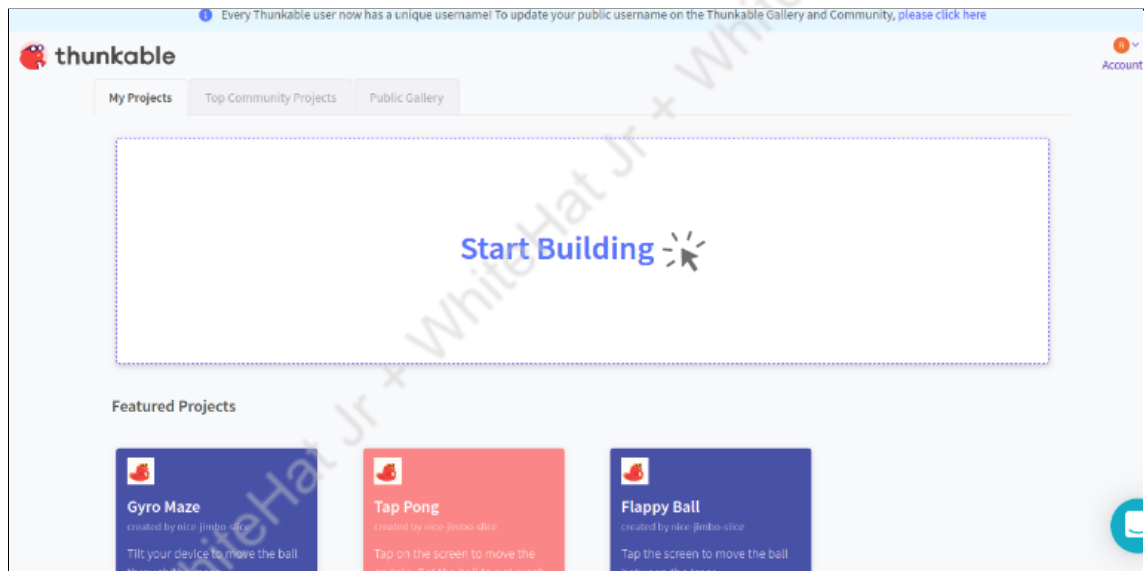
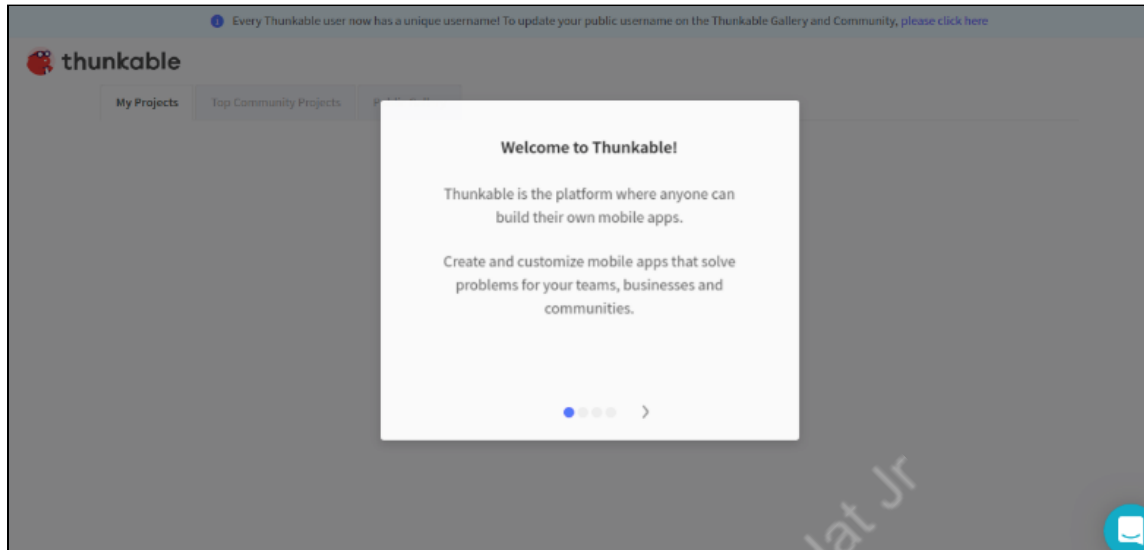
Latest commit ff928ed 5 minutes ago

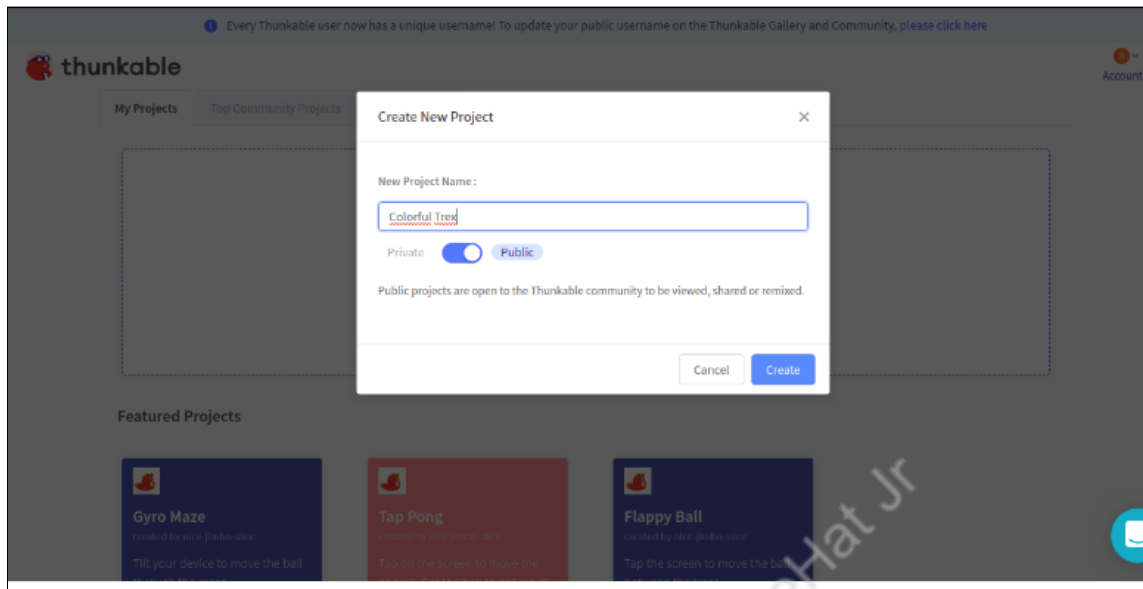
README.md	Initial commit	11 minutes ago
cloud.png	Upload files from created using p5 editor	5 minutes ago
gameOver.png	Upload files from created using p5 editor	5 minutes ago
ground2.png	Upload files from created using p5 editor	5 minutes ago
index.html	Upload files from created using p5 editor	5 minutes ago
obstacle1.png	Upload files from created using p5 editor	5 minutes ago
obstacle2.png	Upload files from created using p5 editor	5 minutes ago
obstacle3.png	Upload files from created using p5 editor	5 minutes ago
obstacle4.png	Upload files from created using p5 editor	5 minutes ago



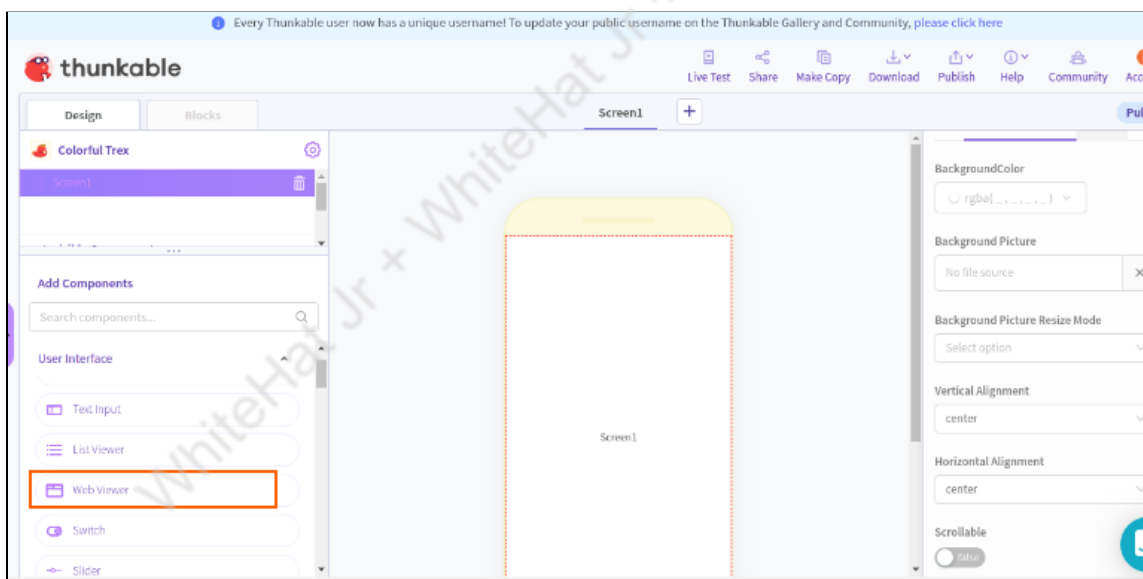
6. Publish the game using Thunkable.

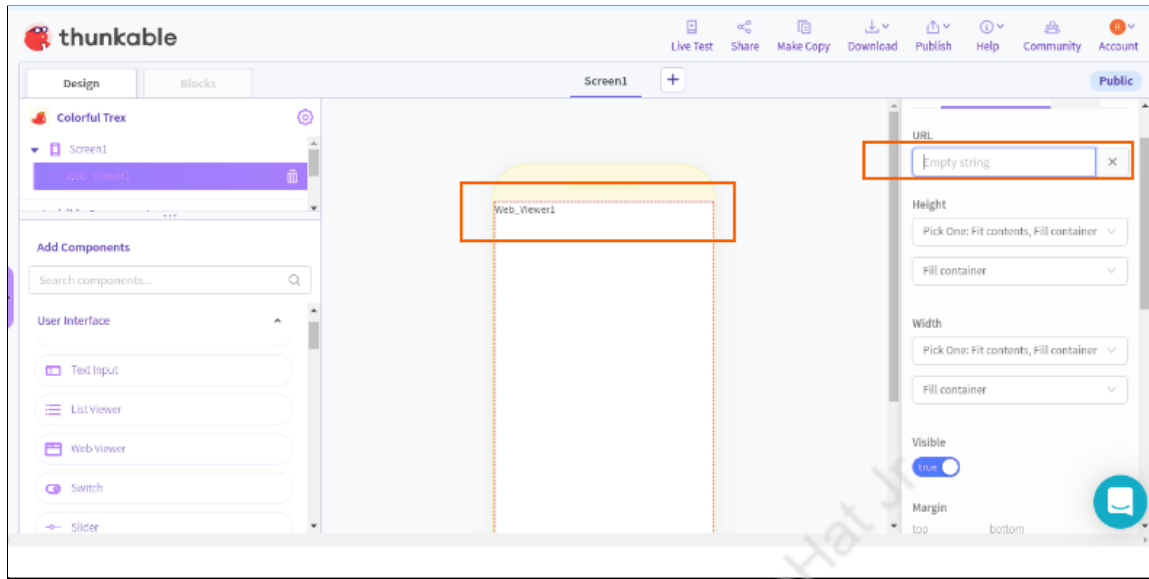




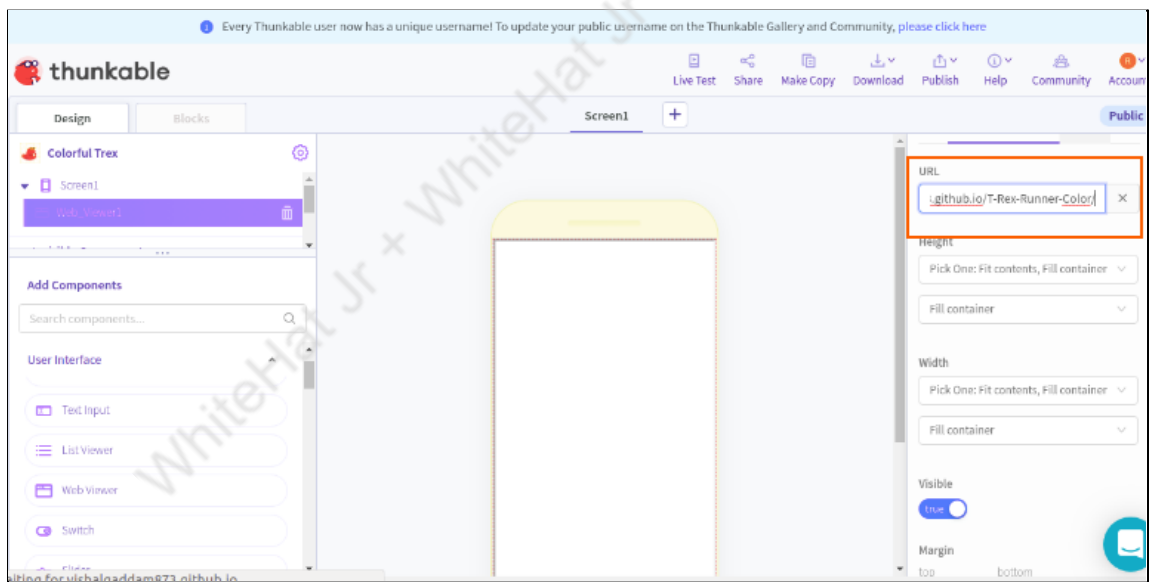


7. Locate and add the “web view” component to the screen.

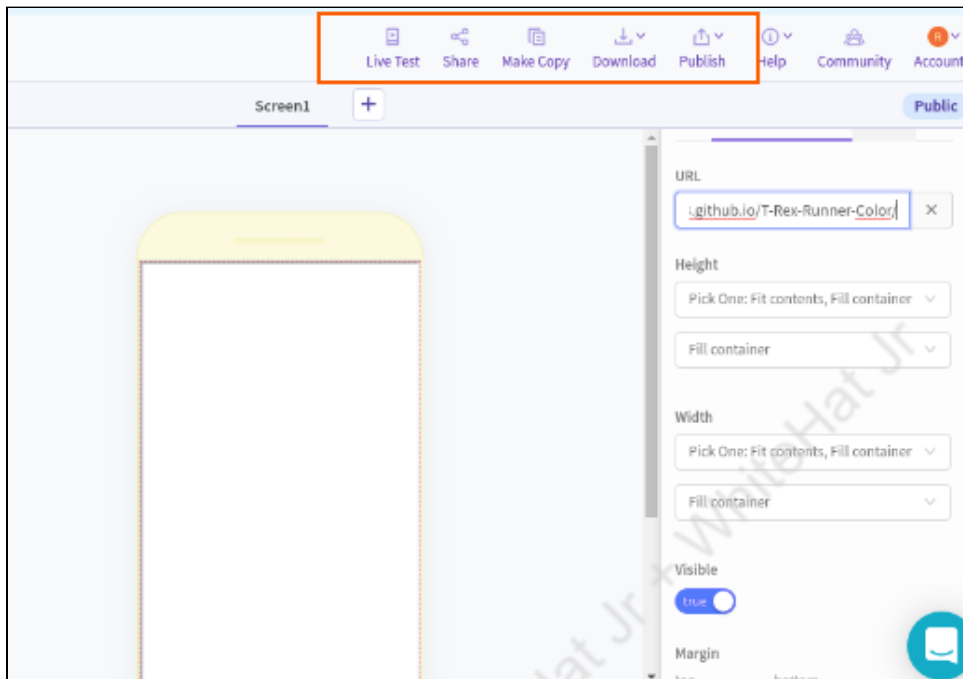




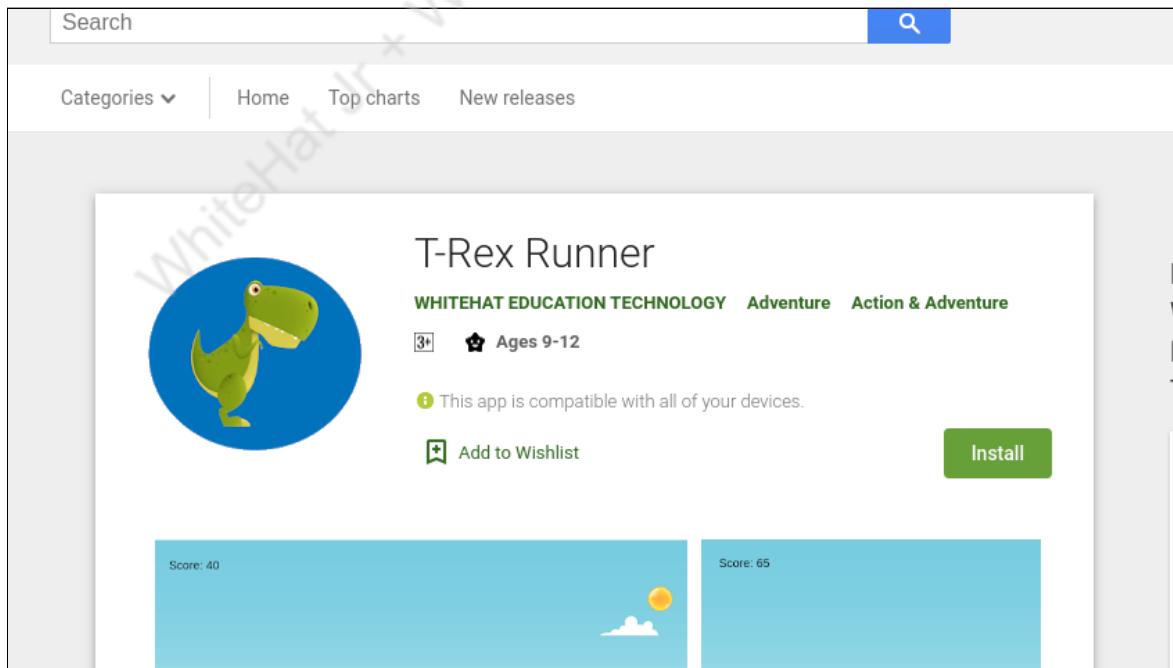
8. Paste the git link in the URL part.



9. Check the live preview on the app, and also download the apk to be installed on ios and android.



10. Download the file from the Play Store.



What's next?

We will learn how to build a different infinite running game - a ghost running on the tower - which you will be coding on your own!

Extend Your Knowledge:

1. Learn & Experiment with more components of Thunkable: <https://thunkable.com/#/>

WhiteHat Jr + WhiteHat Jr + WhiteHat Jr