Unlimited. Zhijie Qian Martin Soto Junhan Li Dong Xu Create

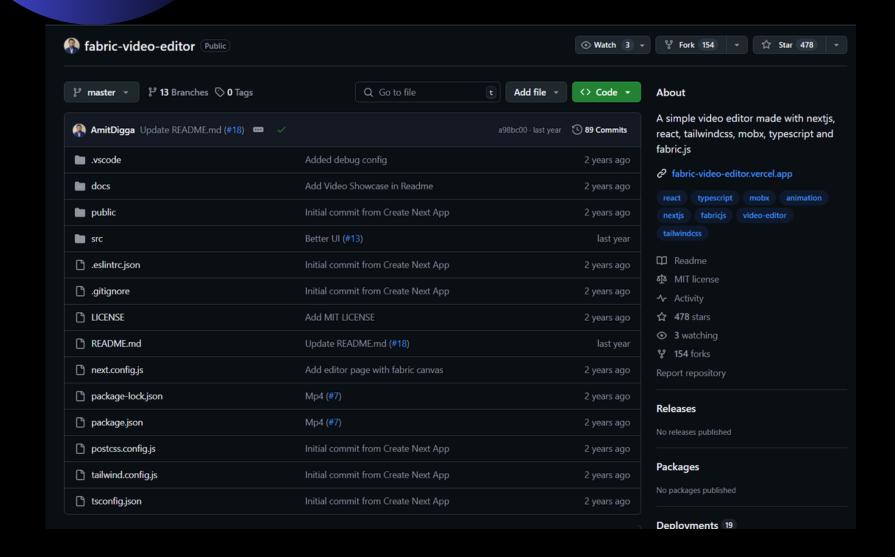
Next Genertaion

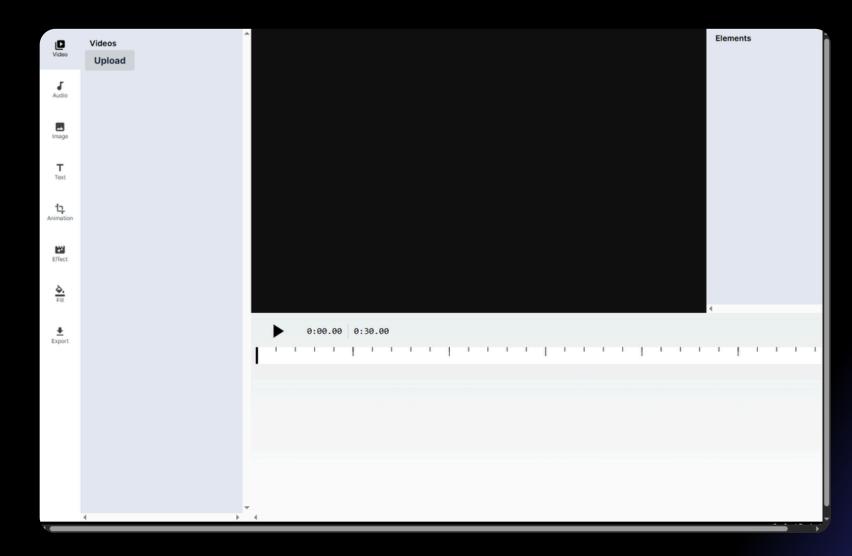
Cloud Video Editor

Next Slide

En el inicio

At the beginning, we were just chatting about whether it might be possible to edit videos online.





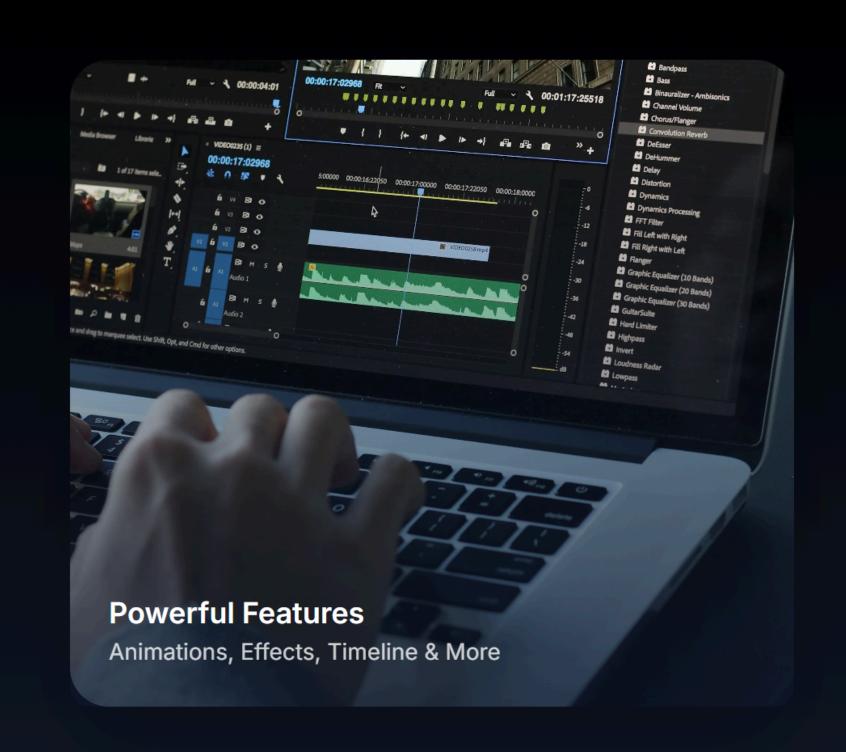
The live share video editor

A colaborative web-based video editor. Edit your videos anywhere, anytime wtih others.

Start to Use

Login

Demo Editor

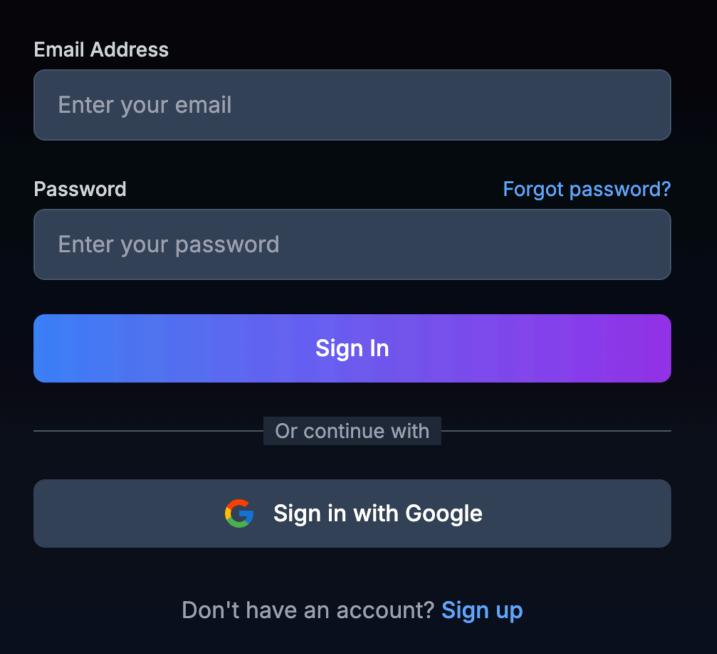


USER LOGIN

We follow an Agile development methodology, working in sprints to deliver high-quality products efficiently. This approach allows for continuous feedback and iterative improvement, ensuring our projects stay aligned with client expectations.

Welcome Back

Sign in to continue to your account



Team Chat



4 days ago

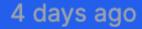


Hello



Junhan Li 4 days ago

Do you have any idea about this project?





Right now no.... But i know Zhijie and Martin have some ideas

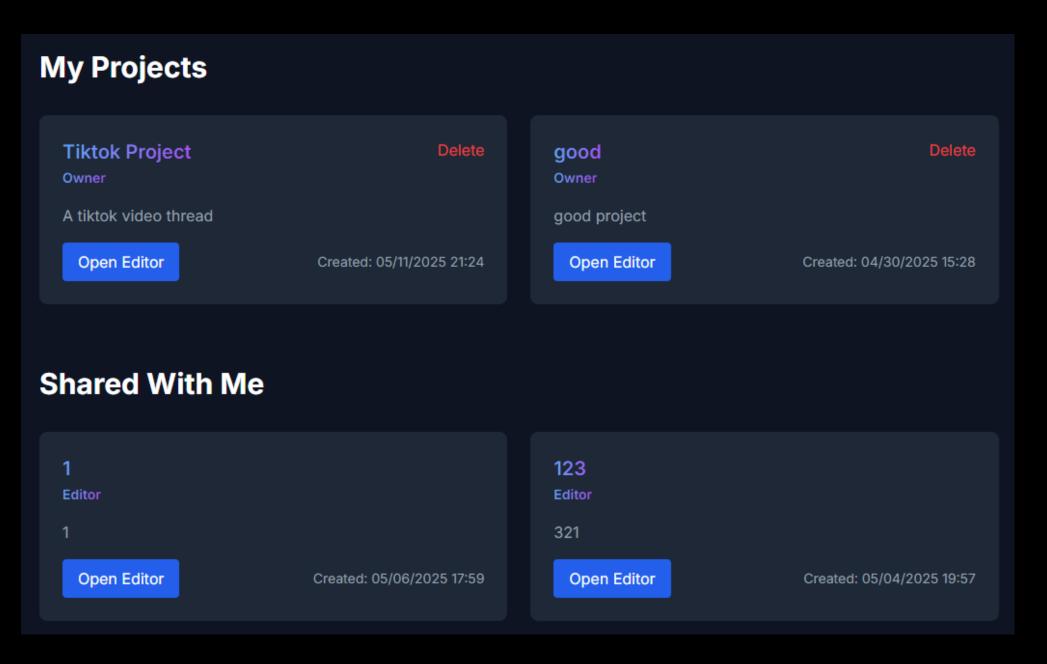




Online chat box

At any time, you can communicate with your team members about the project through the online chat box located at the right corner. This chat box supports group chats with multiple users online simultaneously. Every project you create will include this feature.

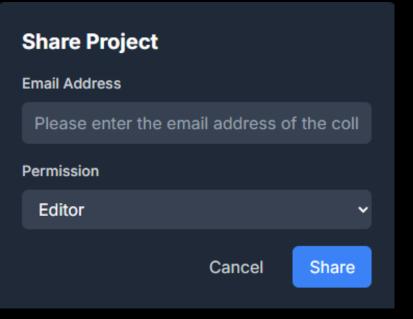
Give it a try and start chatting with your friends anytime!



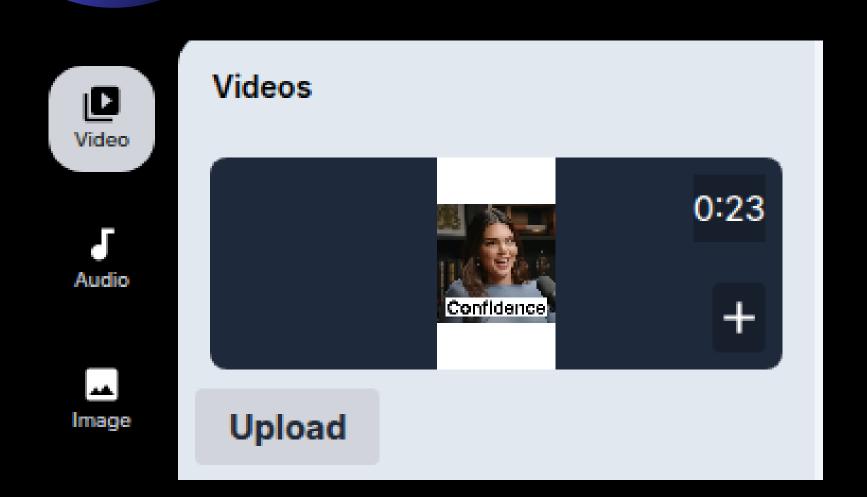
Workspace

En Workspace, el usuario puede ver sus propios proyectos y los proyectos compartidos con él

El usuario puede compartir el proyecto en la pagina de proyecto (si es propietario OWNER)



Almacenamiento - Firestore



```
const uploadFile = async (file: File, folder: string = "uploads"): Promise < string > =>
   const storageRef = ref(storage, '${folder}/${file.name}');
      // Upload the file to Firebase Storage
      await uploadBytes(storageRef, file);
     // Get the file's download URL
      const downloadURL = await getDownloadURL(storageRef);
      return downloadURL;
   } catch (error) {
     console.error("Error uploading file:", error);
      throw error;
 const getFilesFromFolder = async (folder: string = "uploads"): Promise < string [] > => {
   const folderRef = ref(storage, folder);
     const result = await listAll(folderRef);
     const urls = await Promise.all(result.items.map(async (itemRef) => {
       return getDownloadURLFromRef(itemRef);
     }));
     return urls;
   } catch (error) {
     console.error("Error retrieving files from folder:", error);
     throw error;
```

Sincronización - Ficheros

```
onSnapshot(collection(db, 'projects/${this.projectId}/videos'), (snapshot) => {
    snapshot.docChanges().forEach((change) => {
      const data: string = change.doc.data().url as unknown as string;
      if (change.type === "added") {
        this.addVideoResource(data, false);
        console.log("New animation: ", change.doc.data());
    }):
onSnapshot(collection(db, 'projects/${this.projectId}/audios'), (snapshot) => {
    snapshot.docChanges().forEach((change) => {
      const data: string = change.doc.data().url as unknown as string;
      if (change.type === "added") {
16
        this.addAudioResource(data, false);
17
        console.log("New animation: ", change.doc.data());
18
    }):
20
21 });
onSnapshot(collection(db, 'projects/${this.projectId}/images'), (snapshot) => {
    snapshot.docChanges().forEach((change) => {
      const data: string = change.doc.data().url as unknown as string;
      if (change.type === "added") {
27
        this.addImageResource(data, false);
        console.log("New animation: ", change.doc.data());
29
    3):
32 });
```

Sincronización - Animaciones

```
type AnimationBase<T, P = {}> = {
  uid: string | null,
  id: string;
  targetId: string;
  duration: number;
  type: T;
  properties: P;
}
```

```
onSnapshot(collection(db, 'projects/${this.projectId}/animati
    snapshot.docChanges().forEach((change) => {
      const data: Animation = {
         ...change.doc.data(),
        uid: change.doc.id,
      } as Animation;
      if (change.type === "added") {
        this.addAnimation(data, false);
        console.log("New animation: ", change.doc.data());
      if (change.type === "modified") {
        this.updateAnimation(data.id, data, false);
        console.log("Modified animation: ", change.doc.data());
14
      if (change.type === "removed") {
        this.removeAnimation(data.id);
        console.log("Removed animation: ", change.doc.data());
   }):
21 });
```

```
// Store.ts
async addAnimation(animation: Animation, localChange: boolean = true) {
    // ...
    addAnimationToFirestore(animation, this.projectId);
    this.animations = [...this.animations, animation];
    this.refreshAnimations();
}

updateAnimation(id: string, animation: Animation, localChange: boolean = '// ...
uploadAnimationToFirebase(animation, this.projectId);
const index = this.animations.findIndex((a) => a.id === id);
this.animations[index] = animation;
this.refreshAnimations();
}
```

Sincronización - Elementos

```
export type EditorElementBase < T extends string, P > = {
    uid: string | null;
    id: string;
    conflitId: string | null;
    fabricObject?: fabric.Object;
    name: string;
    readonly type: T;
    order: number;
    placement: Placement;
    timeFrame: TimeFrame;
    properties: P;
14 export type EditorElement =
    | VideoEditorElement
    ImageEditorElement
    | AudioEditorElement
    | TextEditorElement:
```

```
function deepCopy(element: EditorElement): EditorElement {
   switch (element.type) {
     case "video":
       return (
         ...element.
         fabricObject: undefined, // Exclude fabricObject
         properties: {
           ...element.properties,
           imageObject: undefined // Exclude imageObject
         placement: { ...element.placement },
         timeFrame: { ...element.timeFrame },
       } as VideoEditorElement;
     case "image":
       return 1
          ...element.
         fabricObject: undefined, // Exclude fabricObject
         properties: {
```

```
91 setSelectedElement(selectedElement: EditorElement | null) {
       var refresh = false;
92
       if (this.canvas) {
93
         if (selectedElement?.fabricObject){
94
            this.canvas.setActiveObject(selectedElement.fabricObject);
95
96
         else{
97
           if(this.selectedElement != null){
98
             const element = this.mergeElement(
99
                this.pendingMerge[this.selectedElement.id]?.from,
100
               this.selectedElement.
101
               this.pendingMerge[this.selectedElement.id]?.to,
102
                this.pendingMerge[this.selectedElement.id]?.type
103
104
             if(element){
105
               if (this.pendingMerge [this.selectedElement.id]) {
106
                  delete this.pendingMerge[this.selectedElement.id];
107
                  this.updateEditorElement(element);
108
                  // Refresh to update the element's appearance (remove editor color)
109
                  this.refreshElements();
110
111
             }else{
112
                const ele = removeUndefinedFields(deepCopy(this.selectedElement));
113
                ele.conflitId = this.selectedElement.id;
114
                ele.id = getUid();
115
                ele.name = '${this.selectedElement.name} (conflit)';
116
                this.conflit[ele.id] = ele;
117
                selectedElement = this.pendingMerge[this.selectedElement.id]?.to;
118
               refresh = true;
119
120
                alert("There is a conflict with the element. Pls, review the conflict
121
       track and delete one of them to sryncronize all data.")
```

```
36 const mergeElementUpdate = function (original: EditorElement, from: EditorElement,
      : EditorElement) {
    const diffFrom: Record < string, any > = diff(original, from);
    const diffTo: Record < string, any > = diff(original, to);
    if ('fabricObject' in diffFrom) {
      delete diffFrom.fabricObject;
    if ('fabricObject' in diffTo) {
      delete diffTo.fabricObject;
    const element = removeUndefinedFields(deepCopy(original));
    const normalChanges = ['order', 'placement', 'timeFrame', 'properties'];
    for (const change of normalChanges) {
        !mergeField(
          element.
          from.
          to.
          change.
          diffFrom.
          diffTo
        return null:
    return element;
```

```
updateEditorElement(editorElement: EditorElement, localChange: bo
      if (this.conflit[editorElement.id] != undefined) {
         this.conflit[editorElement.id] = editorElement;
        return;
      if (this.pendingMerge[editorElement.id] == undefined) {
        if (!localChange) {
           const ele = this.editorElements.find((e) => e.id === edit
10
            return;
12
           const dif = diff(ele, editorElement);
13
          if ('fabricObject' in dif) {
14
             delete dif.fabricObject;
16
           if (Object.keys(dif).length === 0) {
18
19
            return;
        lelsef
           uploadElementToFirebase(editorElement, this.projectId);
23
24
      this.setEditorElements(this.editorElements.map((element) =>
25
         element.id === editorElement.id ? editorElement : element
26
27
      ));
28 }
```

```
onSnapshot(collection(db, 'projects/${this.projectId}/videoEdi
    snapshot.docChanges().forEach((change) => {
       const data = change.doc.data();
       const element: EditorElement = {
         uid: change.doc.id.
        id: data.id,
         conflitId: null.
         name: data.name.
         type: data.type,
         order: data.order.
         placement: data.placement,
11
         timeFrame: data.timeFrame.
12
         properties: data.properties.
13
         editPersonsId: data.editPersonsId,
14
15
       if(data.order >= this.order){
16
         this.order = data.order + 1;
17
18
       if (change.type === "added") {
19
         this.addEditorElement(element, false);
20
         console.log("New element: ", change.doc.data());
21
22
      if (change.type === "modified") {
23
        if (this.selectedElement?.id === element.id) {
          const dif = diff(this.selectedElement, element);
25
          if ("fabricObject" in dif) {
26
             delete (dif as { fabricObject?: unknown }).fabricObj
27
28
          if (Object.keys(dif).length === 0) {
29
             return:
30
3.1
          if (this.pendingMerge[element.id] == undefined) {
32
             this.pendingMerge[element.id] = {
33
               from: this.selectedElement.
               to: element.
35
               type: "updated",
37
          } else {
             this.pendingMerge[element.id].to = element;
39
             this.pendingMerge[element.id].type = "updated";
41
           this.updateEditorElement(element, false);
43
```

Sincronización - Otros

```
// Utils.ts
const addBackgroundToFirestore = async function (background: string, projectId:
    string | null) {
    if (!projectId) {
        console.error('Project ID is null. Cannot update background in Firestore.');
        return;
    }

    const db = getFirestore();
    const projectDocRef = doc(db, 'projects/${projectId}');

    try {
        await updateDoc(projectDocRef, { background });
        console.log('Background updated successfully.');
    } catch (error) {
        console.error('Error updating background in Firestore:', error);
    }
};
```

```
// Store.ts
const projectDocRef = doc(db, 'projects/${this.projectId}');
sonSnapshot(projectDocRef, (docSnapshot) => {
   if (docSnapshot.exists()) {
      const data = docSnapshot.data();
      if (data.background !== undefined) {
        this.setBackgroundColor(data.background, false);
        console.log("Background updated: ", data.background);
      }
   if (data.times !== undefined) {
      this.setMaxTime(data.times, false);
      console.log("Times updated: ", data.times);
    }
} else {
   console.error("Project document does not exist.");
}
```

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Demostración

Hosting



https://cloud-video-editor.vercel.app



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https://cloud-video-editor.vercel.app