



Let's TED

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Let's TED

Overview



Idea

Visione organizzata dei TED Talks di interesse



Time management

Playlist in base al tempo disponibile



Decidi tu

Filtra le proposte per tag, topic o speaker



Quando vuoi

Tieni traccia di dove sei arrivato

Per chi e perché

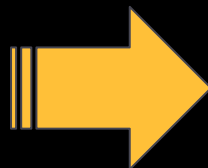


Hai poco tempo?
Basta sprecarlo
perdendoti online,
sfruttalo!

Time 30



Quality 35



Ottieni il massimo in
poco tempo, amplia il
tuo bagaglio di
conoscenze

Time 30



Quality 95



Architettura

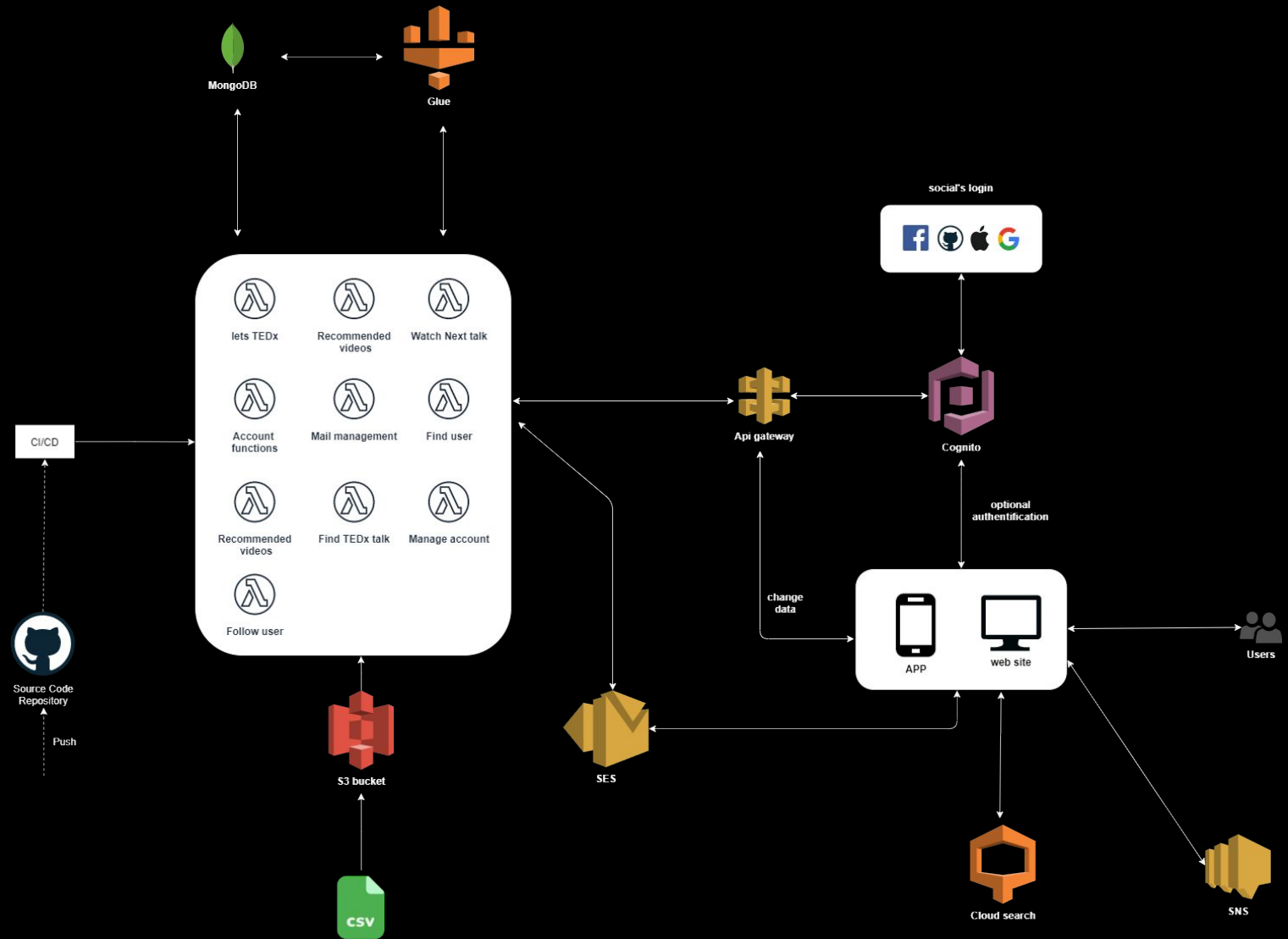
S3 bucket

Cognito

AWS Lambda

API gateway

MongoDB



Evoluzione



IDEA

Crea playlist a tempo



SALVA

Tieni la playlist per dopo



INTERAGISCI

Valuta e commenta i talk



CONDIVIDI

Fallo sapere agli amici



SCOPRI

Team sempre al lavoro

Trello Board

<https://trello.com/b/dUjvknyZ/lets-ted>

The screenshot displays a Trello board named "Let's Ted" with a dark theme. The board is organized into several vertical lanes, each representing a stage in the project workflow. The top navigation bar includes a search icon, the board name "Let's Ted", a star icon, a toggle for "Spazio di lavoro privato" (Private workspace), a "Pubblica" (Public) button, and an "Invita" (Invite) button with user avatars. The right side of the board shows the user "Butler" and a "Mostra menu" (Show menu) option.

The lanes and their contents are as follows:

- Info Box:** Contains sections for "Priority Tags", "Task Tags", and "Links".
- Ideas (To be approved):** Includes "Migrating to a private cloud", "Building a Smart-TV app", and "Simplify UI for Elders".
- To-Do (Approved Ideas):** Includes "Develop Group Watch".
- Pre-Alpha Version:** Includes "Fundamental functions and database interoperation", "Making CI/CD choices and define guidelines", "Set-up Amzn Api Gateway", "Set-up Glue", "Create MongoDB database and import TEDx data", "Build basic lambda functions", "Adding a debug ecosystem", and "Create a basic develop ui for testing".
- Alpha Version:** Includes "Schedule generation and user customization", "Implement Amzn CloudSearch", "Create the schedule logic", "Develop a basic scheduler algorithm", "Develop basic Web-App", "Build advanced lambda functions", "Create user-friendly UI", and "Allowing users to edit their own profiles".
- Closed-Beta Version:** Includes "Complete functionality and stability", "Find and fix bugs from user reports", "Develop the complete Web-App", "Develop Mobile-App", and "Improve the scheduler logic and algorithm".
- Open-Beta Version:** Includes "Social sharing of playlists", "Find and fix bugs from user reports", "Playlist sharing", "Manage social media presence of 'Let's Ted'", "Integrate notification (Amzn SNS)", and "Integrate Mailing Lists (Amzn SES)".
- Release 1.0:** Includes "Usage information generation and inspection", "Find and fix bugs from user reports", and "Create a user-experience questionnaire".

Each lane has a "Docs" section at the bottom and a "+ Aggiungi un'altra scheda" (Add another card) button. The board is set against a background with a dark grey and blue gradient, and a wooden texture on the right side.

Valore

Fornire informazione in tempi rapidi, generare curiosità verso nuovi ambiti

Criticità

La qualità della risposta dipende dal numero di talk presenti online

Opportunità

Combattere il “doom-scrolling” e le i tempi morti

Problema

Minimizzare i tempi di risposta, invogliare anche l'utente con poco tempo

Watch_next _tags_time Glue Job

- Per ogni video suggerito abbiamo aggiunto i campi tag e duration
- Pulizia del dataset ed eliminazione campi non necessari
- Vengono anche recuperate info extra che sfrutteremo più avanti

```
# READ WATCH_NEXT DATASET
watch_next_dataset_path = "s3://unibg-data-2021-test/watch_next_dataset.csv"
watch_next_dataset_raw = spark.read.option("header", "true").csv(watch_next_dataset_path)
watch_next_dataset = watch_next_dataset_raw.drop_duplicates().where('url != "https://www.ted.com/session/new?context=tet.www%2Fwatch-later"')

# JOIN idx, duration, watch_next_id, tags
watch_next_dataset = watch_next_dataset.join(tedx_dataset_agg, watch_next_dataset.watch_next_idx == tedx_dataset_agg.id) \
    .drop("_id") \
    .drop("main_speaker") \
    .drop("title") \
    .drop("details") \
    .drop("posted") \
    .drop("url") \
    .drop("num_views") \

watch_next_dataset = watch_next_dataset.groupBy("idx", "watch_next_idx").agg(F.collect_list(F.struct("watch_next_idx", "duration", "tags")).alias("watch_next")) \
    .drop("duration") \
    .drop("tags") \

watch_next_dataset = watch_next_dataset.join(tedx_dataset_agg, watch_next_dataset.idx == tedx_dataset_agg.id) \
    .drop("_id") \
    .drop("main_speaker") \
    .drop("title") \
    .drop("details") \
    .drop("posted") \
    .drop("url") \
    .drop("num_views") \

# ADD WATCH_NEXT TO AGGREGATE MODEL
watch_next_dataset_agg = watch_next_dataset.groupBy("idx").agg(F.collect_list("watch_next").alias("watch_next"))
tedx_dataset_agg = tedx_dataset_agg.join(watch_next_dataset_agg, tedx_dataset_agg.id == watch_next_dataset_agg.idx, "left").drop("idx")
```


Watch_next _tags_time result

In questo modo siamo in grado di organizzare la playlist dell'utente in base alle sue preferenze



```
_id: "19f6b5880bf091414851f3ce13030f54"
main_speaker: "Rod Phillips"
title: "What happened when the United States tried to ban alcohol"
details: "On January 17, 1920, less than one hour after spirits had become illeg..."
posted: "Posted Jul 2020"
url: "https://www.ted.com/talks/rod_phillips_what_happened_when_the_united_s..."
num_views: "485,964"
duration: "4:54"
tags: Array
  0: "TED"
  1: "talks"
  2: "TED-Ed"
  3: "animation"
  4: "government"
  5: "education"
  6: "history"
  7: "United States"
  8: "culture"
  9: "religion"
watch_next: Array
  0: Array
    0: Object
      watch_next_idx: "86729a80445dd34bc1db9a3c418bbfaf"
      duration: "5:27"
      tags: Array
        0: "TED"
        1: "talks"
        2: "TED-Ed"
        3: "animation"
        4: "history"
        5: "identity"
        6: "education"
        7: "United States"
        8: "politics"
        9: "government"
        10: "immigration"
        11: "war"
        12: "race"
        13: "equality"
    1: Array
    2: Array
    3: Array
    4: Array
    5: Array
```

Get_Watch_ Next_by_Idx LF

Dato l'id di un video
restituisce la lista dei watch
next associati

```
const connect_to_db = require('./db');
const talk = require('./Talk');

module.exports.get_watch_next_by_idx = (event, context, callback) => {
  context.callbackWaitsForEmptyEventLoop = false;
  console.log('Received event:', JSON.stringify(event, null, 2));
  let body = {}
  if (event.body) {
    body = JSON.parse(event.body)
  }
  // set default
  if(!body.id) {
    callback(null, {
      statusCode: 500,
      headers: { 'Content-Type': 'text/plain' },
      body: 'Could not fetch the talks. Id is null.'
    })
  }

  connect_to_db().then(() => {
    console.log('=> Get_Watch_Next_by_Idx');
    talk.find({_id: body.id})
      .then(talks => {
        callback(null, {
          statusCode: 200,
          body: JSON.stringify(talks)
        })
      })
      .catch(err => {
        callback(null, {
          statusCode: err.statusCode || 500,
          headers: { 'Content-Type': 'text/plain' },
          body: err.message
        })
      })
  })
};
```

result

Get_Watch_ Next_by_Idx LF

```
// REQUEST:
{
  "id": "08f9e99cc8704eb83b65e6159cb27877"
}

// RESPONSE:
[[
  {
    "watch_next": [
      {
        "watch_next_idx": "c69d0dbc270bdd76c111913f82bd875f",
        "duration": "18:38",
        "tags": ["TED", "talks", "activism", "collaboration", "creativity", "education", "future", "social change"]
      },
      {
        "watch_next_idx": "42f1c529c07907c2b7c4cd24bda7629f",
        "duration": "7:47",
        "tags": ["TED", "talks", "activism", "gender", "performance", "parenting", "education", "teaching", "music", "kids", "LGBTQIA+"]
      },
      {
        "watch_next_idx": "fe343bbb8ce5f0ec41a2269db5c7900b",
        "duration": "6:14",
        "tags": ["TED", "talks", "history", "TED Residency", "Transgender", "society", "social change", "activism", "identity", "culture", "equality", "LGBTQIA+"]
      },
      {
        "watch_next_idx": "3eb514bdb266e4813a021b4b307266c5",
        "duration": "15:10",
        "tags": ["TED", "talks", "education", "math", "science", "technology", "psychology", "history", "race", "engineering", "curiosity", "community", "medical research", "social change"]
      },
      {
        "watch_next_idx": "ca38a5d57f486bba94445e00b4aef2c9",
        "duration": "20:40",
        "tags": ["TED", "talks", "Internet", "computers", "education", "global issues", "code"]
      },
      {
        "watch_next_idx": "6eb0336e6ff2de4399ae14c554819eac",
        "duration": "18:18",
        "tags": ["TED", "talks", "TEDx", "Transgender", "United States", "gender", "identity", "photography", "relationships", "equality", "LGBTQIA+"]
      }
    ]
  },
  {
    "_id": "08f9e99cc8704eb83b65e6159cb27877",
    "main_speaker": "Coby Everton",
    "title": "The importance of queer allyship in the classroom",
    "details": "School can be an awkward time for nearly everyone, but for queer students, it can be particularly nightmarish. In a heartfelt and personal talk, Coby Everton shares his experiences and offers advice on how to navigate these challenges.",
    "posted": "Posted Dec 2019",
    "url": "https://www.ted.com/talks/coby_everton_the_importance_of_queer_allyship_in_the_classroom",
    "num_views": "0",
    "duration": "10:12",
    "tags": ["TED", "talks", "teaching", "education", "compassion", "social change", "LGBTQIA+"]
  }
]]
```

Lets_tedx LF

Abbiamo realizzato una lambda function che permette all'utente di inserire tag e durata della playlist desiderata

```
connect_to_db().then(() => {  
  talk.find({tags: body.tag})  
    .skip((body.doc_per_page * body.page) - body.doc_per_page)  
    .limit(body.doc_per_page)  
    .then(talks => {  
      var tot_durata = 0;  
      var playlist = [];  
      var secondi_utente = body.time * 60;  
      while(tot_durata < secondi_utente && talks.length > 0 ){  
        var elem = talks.shift();  
        var a = elem.duration.split(':');  
        var secondi_video = (+a[0])*60 + (+a[1]);  
        var controllo = tot_durata + secondi_video;  
  
        if(controllo <= secondi_utente){  
          playlist.push(elem);  
          tot_durata += secondi_video;  
        }  
      }  
      callback(null, {  
        statusCode: 200,  
        body: JSON.stringify(playlist)  
      })  
    })  
  .catch(err =>  
    callback(null, {  
      statusCode: err.statusCode || 500,  
      headers: { 'Content-Type': 'text/plain' },  
      body: err.message  
    })  
  );  
});
```

result Lets_tedx LF

// REQUEST

```
{  
  "tag": "talks",  
  "time": "12"  
}
```

// RESPONSE

```
[{  
  "main_speaker": "Coby Everton",  
  "title": "The importance of queer allyship in the classroom",  
  "details": "School can be an awkward time for nearly everyone, but for queer students, it can be particularly nightmarish. In a heartfelt and personal talk, Coby Everton shares their experiences of is",  
  "posted": "Posted Dec 2019",  
  "url": "https://www.ted.com/talks/coby_everton_the_importance_of_queer_allyship_in_the_classroom",  
  "num_views": 0,  
  "duration": "10:12",  
  "tags": ["TED", "talks", "teaching", "education", "compassion", "social change", "LGBTQIA+"],  
  "watch_next": [  
    [{  
      "watch_next_idx": "c69d0dbc270bdd76c111913f82bd875f",  
      "duration": "18:38",  
      "tags": ["TED", "talks", "activism", "collaboration", "creativity", "education", "future", "social change"]  
    }],  
    [{  
      "watch_next_idx": "42f1c529c07907c2b7c4cd24bda7629f",  
      "duration": "7:47",  
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    }],  
    [{  
      "watch_next_idx": "fe343bbb8ce5f0ec41a2269db5c7900b",  
      "duration": "6:14",  
      "tags": ["TED", "talks", "history", "TED Residency", "Transgender", "society", "social change", "activism", "identity", "culture", "equality", "LGBTQIA+"]  
    }],  
    [{  
      "watch_next_idx": "3eb514bdb266e4813a021b4b307266c5",  
      "duration": "15:10",  
      "tags": ["TED", "talks", "education", "math", "science", "technology", "psychology", "history", "race", "engineering", "curiosity", "community", "medical research", "social change", "equality"]  
    }],  
    [{  
      "watch_next_idx": "ca38a5d57f486bba94445e00b4aef2c9",  
      "duration": "20:40",  
      "tags": ["TED", "talks", "Internet", "computers", "education", "global issues", "code"]  
    }],  
    [{  
      "watch_next_idx": "6eb0336e6ff2de4399ae14c554819eac",  
      "duration": "18:18",  
      "tags": ["TED", "talks", "TEDx", "Transgender", "United States", "gender", "identity", "photography", "relationships", "equality", "LGBTQIA+"]  
    }]  
  ]  
}]
```

Possibili evoluzioni

Si può scegliere di creare una playlist che dura poco meno di quella richiesta dall'utente oppure, una volta scaduto il tempo, proporre di salvare il video per continuare più tardi

Gestire la social media presence di Let's TED

Criticità

La qualità della playlist creata dipende dalla varietà di talk presente nel dataset

La durata totale del set di video creato è per forza minore o maggiore di quella desiderata dall'utente