# **Project Ideas**

**Note:** Authentication is required by default.

### Finance tracker

Personal finance tracker. You can record all your spendings and income to understand where does your money actually go.

#### **Basic functions**

- Transaction list (Add / Edit / Remove transaction functions)
  - Two types of transactions: income / expense
  - Each transaction should contain following data: amount, date, place (optional), comment (optional), image (optional).
- Categories for transactions (Add / Edit / Remove category functions)
- Statistics for user per period (month, year, week)
  - Total spendings (and per category)
  - Total income (and per category)

Examples: ZenMoney, Spendee

### **Group expenses app**

An application to manage group bills paid by one person.

#### **Basic functions**

- English and Russian language support (switch in header)
- Dashboard
  - Current balance (I owe, others owe me)
  - Recent payments
- Add expense:
  - total amount
  - photo (can be empty)

- participants (list with suggested names of people user already added to other transactions)
- split method (equal, particular amount)
- Edit / Delete expense
- Mark expense as 'repaid'

Example: Spliwise

### Calendar

Time- and activity-management application. User can set appointments, tasks and reminders.

#### **Basic functions**

- Calendar view (year, month, week view).
- Days with appointments should be marked by colour of appointment (or multiple colours in case of more than one appointment)
- Upcoming appointment for current day / pending tasks are on top of the page
- Appointment creation
  - title
  - description
  - start / end date and time
  - place (may be empty)
  - zero, one or more reminders (user can type in when to remind)
  - color (to distinguish tasks)
- Task creation (tasks have a 'completed' status. After user marked task as 'completed', it will disappear from 'pending' section)
- Ability to edit / delete appointment or task

**Examples:** <u>TickTick</u> and well, any calendar.

### Music player

Music catalogue / player application.

#### **Basic functions**

- Upload music track
  - set / update its title, performer name, cover image
  - o assign one or more genres
  - attach lyrics to track
- User can perform a search across all uploaded music by all users
- Create / edit / delete / duplicate playlists

Examples: Yandex.Music, Spotify

### 'Alias' game

A game in which players have to explain words to others.

#### **Basic functions**

- Word set management (CRUD)
- · Word set selection (with example words from the set)
- Team management (define number of teams and set their names)
- Game settings (number of words, time for each player)
- Game process
  - swipe gesture word control
  - a page with stats after each player finish explanation
  - word status can be changed (guessed / skipped)
- Past games statistics

**Examples:** Alias

### **Online quiz**

Realtime quiz application. After quiz is created and started, a unique code is generated for participant to join.

#### **Basic functions**

- Quiz creation
  - o define a quiz name
  - define set of questions
  - question can have answer options for player or can be a freeform question (user must type in the answer)
  - set a time for each question
- Quiz execution
  - waiting phase with list of joined (via code) participants. Creator starts the quiz by pressing a button during this phase.
  - running phase each participant sees a question and have time to give an answer
  - o results phase each participant can see quiz results

Examples: Kahoot!

# File manager

Filesystem emulation using Firebase <u>Cloud storage</u> and Firestore or Realtime DB for directory emulation.

#### **Basic functions**

- Windows Explorer OR MacOS Finder-alike interface
  - buttons for common actions
  - adaptive button grid (depends on screen size) [ex1, ex2, ex3]
  - at least 3 icon organisation modes (table, list, grid)
  - right-click context menu
- Directory management (CRUD)
- Nested directories support

- File management (CRUD)
  - o file preview (side panel or modal)
  - text files
  - images
- Drag and Drop support for files and folders

**Examples:** Chonky.io

# Anki-like app

Online tool to learn something new.

#### **Basic functions**

- Home page with current stats and reminders
- Card collections (CRUD)
- Cards (CRUD)
- · Spaced repetition algorithm

Examples: Anki, Quizlet

# Song and lyrics DB

An application to store and discuss song lyrics.

#### **Basic functions**

- Music tracks (CRUD)
  - title
  - album
  - author
- Lyrics (CRUD)
  - each song can have one or more lyrics
  - author

- language (original or translation)
- user can select (with mouse or touch) a part of the text and add an annotation to it
- text parts with annotations should be highlighted in text, annotations are displayed near the text
- other users can rate lyrics and comments (upvote / downvote)

**Examples:** Genius

### **Cocktail database**

A website, where user can share own unique cocktail recipe or rate cocktails created by others

#### **Basic functions**

- Main feature: visualisation
  - each cocktail should have a dynamically generated visual representation based on ingredients selected by user upon creation
  - glass form may be identical for all recipes
  - ingredients are hard-coded by developer (minimum 10 visually different ingredients)
  - each ingredient should have specific color or texture to display
  - order and proportion of ingredients affect visual representation
- Main feed with top-rated cocktails, their average rating and their images
- Cocktail constructor
  - o name
  - description
  - recipe: an ordered list of ingredients with their volumes for this cocktail
- An ability to rate cocktails (1-5 stars rating system) and leave a comment

**Examples:** RateCoffee

**Note:** the same idea could underlie a meal constructor, for example

# And many more...

Typing Game Typing Club

Color scheme constructor: <u>colorbox</u>, <u>Adobe Color</u>, <u>coolors</u>

**Css-animation builder** <u>keyframes</u>

**Language-learning games:** <u>Duolingo</u>

Time-management app: ToDoist, Trello

Habit tracker app: Productive, Streaks

Movie Seat Booking: ByCard, Silver Screen

Puzzle Game: gucci

Interactive personal portfolio: uixninja