

Abstract

The project app store database management system is already in existence of great many companies like apple, google, Microsoft etc. it's really needed because of various reasons. Mostly of increasing number of developers and their products. Google and apple have made developers to build apps and their plugins very easily or freely in some cases. Due to these platforms like Xcode or android studio etc. developers are building tons of apps daily.

With the use of this project a user who wants download or know more info about the developer or similar apps or other apps developed by the same developers can be browsed with ease.

The main purpose of this software is to reduce the manual errors involved in the app store database process and make it convenient for the customers to access the database as when they require such that they can utilise this software insert, modify information or delete a particular information.

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Chapter 1

Introduction

1.1 Outline

This project will give user a unique experience to browse through the apps and similar apps. This project will be having databases of the developers, apps and their ranks in the App Store or play store, with all the attributes about the developer and about the apps that has been developed and releases of that app and also versions etc.

after creating this database user can browse the database with simple interface get to know about the knowledge or datas. After retrieving the queries from the database, the interface will give u the required info or data about that particular apps or developer.

1.2 Motivation and Scope

Check the validity of input data and give a feedback to the user in case of errors or inconsistency. And Protect customers' privacy concerns.

Make it easy for travellers to check the ticket status or make changes to their trip.

the motivation behind this database is to help common people understand the what type of apps and the ease of using them. It is crucial that their are lots of apps with similar names or same type of logo. This misleads to the original apps or real apps that is stable and has no bugs in it and also the popularity if the original apps. And trending table gives the user whats new and which apps are currently being downloaded more and is highly rated for that period.

1.3 Problem Statement

Design and develop User Interface for app-store database system that facilitates the developers and users to enquire about the apps available on the basis category. Insertion, deletion ,update and modification should be done by the GUI so as to reduce complication and ease of operation.

1.4 Limitations

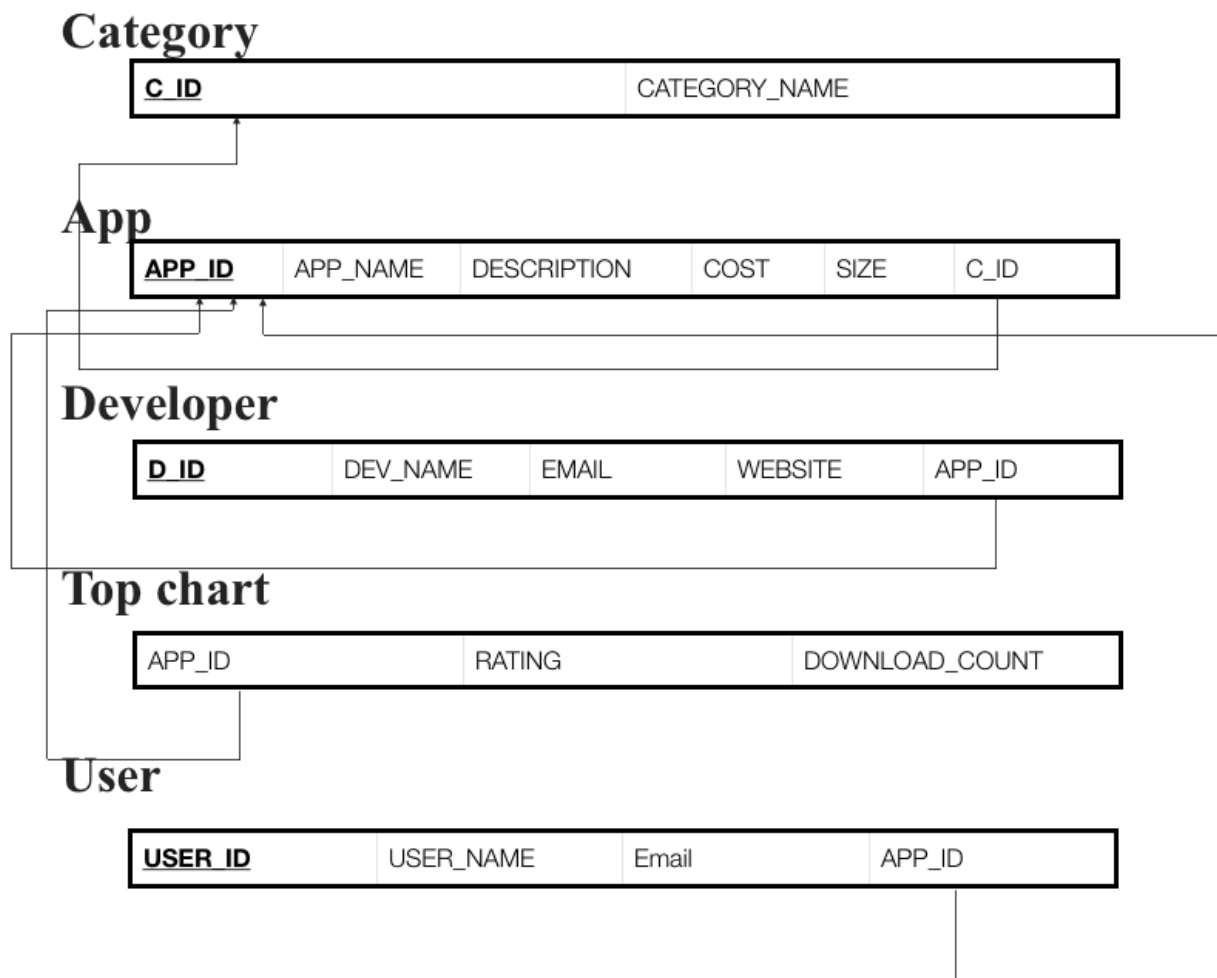
App-store database requires python to be installed without which it will not be able to function.

App Store database does not follow Google's material design guidelines and uses fairly outdated Tkinter GUI Architecture.

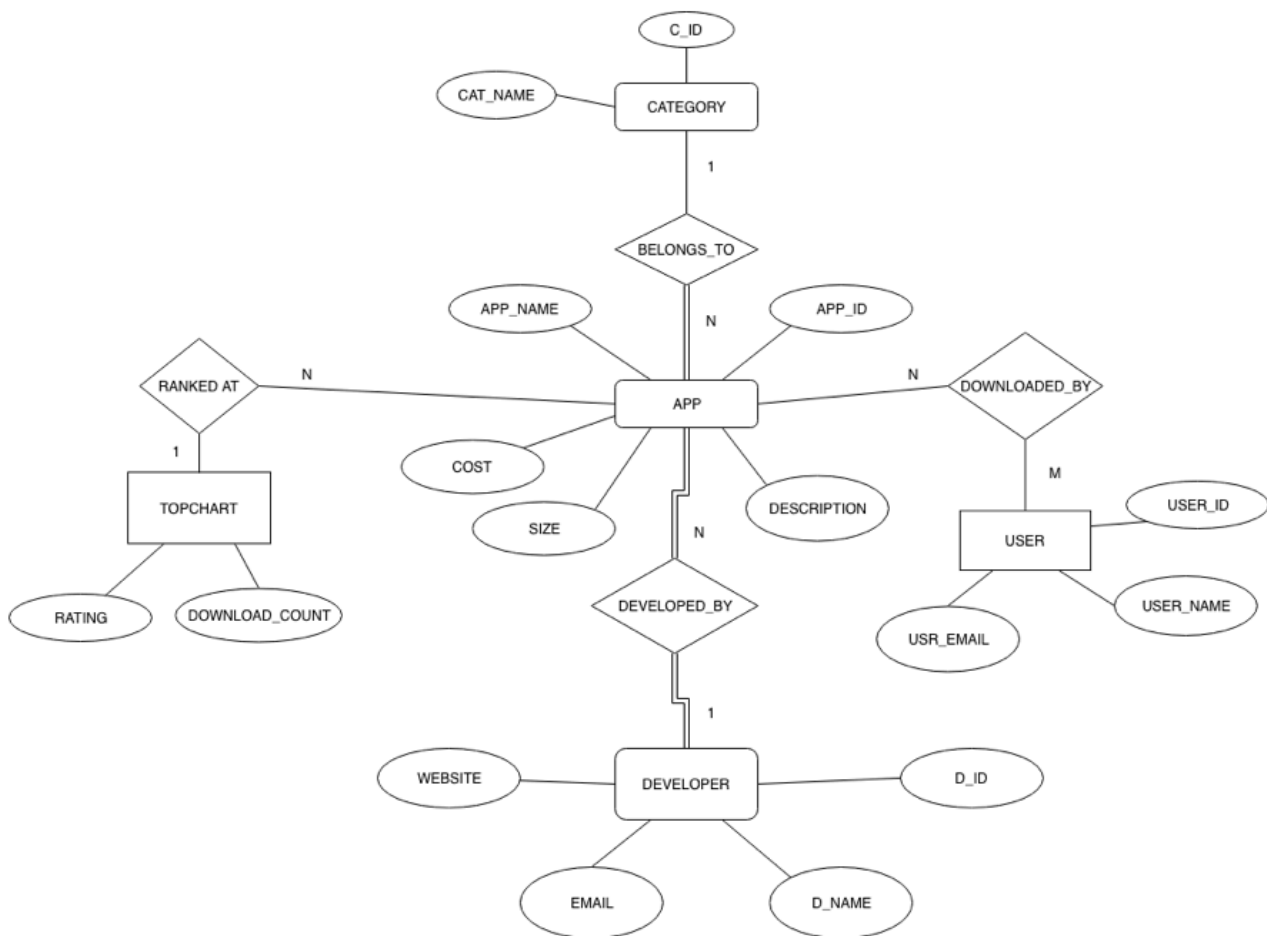
App-store cannot dynamically update and needs to be done by the Database Administrator.

System design

2.1 Schema diagram



2.2 E-R diagram



Implementation

3.1 Description of Database Used

SQL

It allows combination ,extraction , manipulation and organisation of data in the voters database.It is platform independent and therefore can be implemented and used across several such as Windows , Linux server and is compatible with various hardware mainframes. It is fast in performance , stable and provides business values at a low cost.

The database has become an integral part of almost every human's life. Without it, many things we do would become very tedious, perhaps impossible tasks. Banks, universities, and libraries are three examples of organisations that depend heavily on some sort of database system. On the Internet, search engines, online shopping, and even the website naming convention would be impossible without the use of a database. A database that is implemented and interfaced on a computer is often termed a database server.

Reasons to Use MySQL

- Scalability and Flexibility
- High Performance
- High Availability
- Robust Transactional Support
- Web and Data Warehouse Strengths
- Strong Data Protection
- Management Ease

Entity

An entity is an “object” in the real world that is distinguishable from all other objects. An entity set is a set of entities of the same type that share the same attributes.

Weak Entity

An entity set that may not have sufficient attributes to form a primary key is termed as a weak entity set.

Attribute

Attributes are descriptive properties possessed by each member of an entity set.

Key attribute

A key attribute is the unique, distinguishing characteristic of the entity.

Multivalued attribute

In an instance where an attribute has a set of values for a specific entity is called multivalued attribute.

Derived attribute

In these attributes the value can be derived from the values of other related attributes.

3.2 Description of Integrated Development Environment

Tkinter

It is a Python binding to the Tk GUI toolkit. It is the standard Python interface to the Tk GUI toolkit,^[1] and is Python's de facto standard GUI.^[2] Tkinter is included with standard Linux, Microsoft Windows and Mac OS X installs of Python.

As with most other modern Tk bindings, Tkinter is implemented as a Python wrapper around a complete Tcl interpreter embedded in the Python interpreter. Tkinter calls are translated into Tcl commands which are fed to this embedded interpreter, thus making it possible to mix Python and Tcl in a single application.

Tk provides the following widgets:

- button
- canvas
- checkbutton
- combobox
- entry
- frame
- label
- labelframe
- listbox
- menu
- menubutton
- message
- notebook
- tk_optionMenu
- panedwindow
- progressbar
- radiobutton
- scale
- scrollbar
- separator

- sizegrip
- spinbox
- text
- treeview

It provides the following top-level windows:

- tk_chooseColor - pops up a dialog box for the user to select a color.
- tk_chooseDirectory - pops up a dialog box for the user to select a directory.
- tk_dialog - creates a modal dialog and waits for a response.
- tk_getOpenFile - pops up a dialog box for the user to select a file to open.
- tk_getSaveFile - pops up a dialog box for the user to select a file to save.
- tk_messageBox - pops up a message window and waits for a user response.
- tk_popup - posts a popup menu.
- toplevel - creates and manipulates toplevel widgets.

Tk also provides three geometry managers:

- place - which positions widgets at absolute locations
- grid - which arranges widgets in a grid
- pack - which packs widgets into a cavity

Methodology

Description of Entities:

1.category Data :

This entity is used to store the information about type of the app and is used to segregate the apps in the app-store so that it will be easy to understand and search for any particular apps.

- Category Id
- Category Name

Field	Type	Null	Key	Default
c_id	int(11)	NO	PRI	NULL
category_name	varchar(20)	YES		NULL

2 . App Data:

This entity is used to store the information of apps.

The attributes of this entity is listed below

- App Id
- App name
- Description of that app
- Cost of the app
- Size of the app
- Category id

Field	Type	Null	Key	Default
app_id	int(11)	NO	PRI	NULL
app_name	varchar(20)	YES	UNI	NULL
description	varchar(50)	YES		NULL
cost	varchar(10)	YES		NULL
size	varchar(10)	YES		NULL
c_id	int(11)	YES		NULL

3. Developer data:

This entity is used to display the information of developers who develop their apps and publish in the app-store.

The attributes of this entity is listed below

- Developer Id
- Developer name
- Website
- App id

Field	Type	Null	Key	Default
d_id	int(11)	NO	PRI	NULL
dev_name	varchar(20)	YES		NULL
website	varchar(20)	YES		NULL
app_id	int(11)	YES		NULL

4. Top-chart:

This entity is used to store the information of apps with high rating

- App id
- Rating
- Download count

Field	Type	Null	Key	Default
app_id	int(11)	YES		NULL
rating	decimal(10,0)	YES		NULL
d_count	varchar(10)	YES		NULL

5. User :

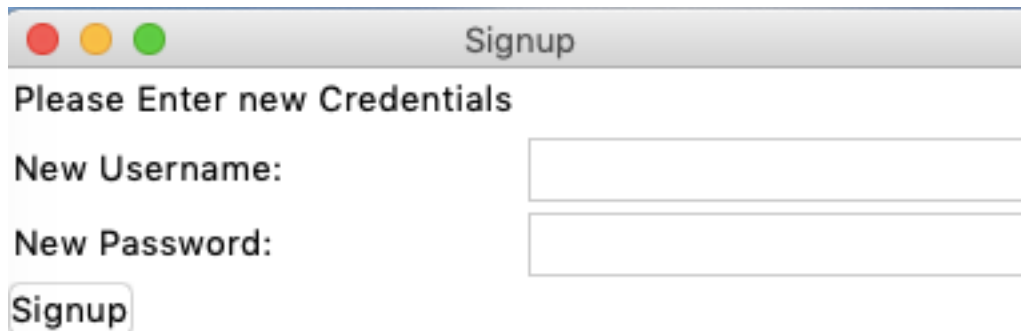
This entity is used to store the information of Requestor who are Requesting to access the database.

The attributes of this entity is listed below

- User Id
- User Name
- Password

Field	Type	Null	Key	Default
user_id	varchar(20)	NO	PRI	NULL
user_name	varchar(20)	YES		NULL
email	varchar(30)	YES	UNI	NULL
app_id	int(11)	YES		NULL

Interpretation of Results

A screenshot of a 'Signup' window. The title bar has three colored buttons (red, yellow, green) and the text 'Signup'. The main content area has the text 'Please Enter new Credentials'. Below this, there are two input fields: 'New Username:' and 'New Password:'. At the bottom left, there is a 'Signup' button.

Signup

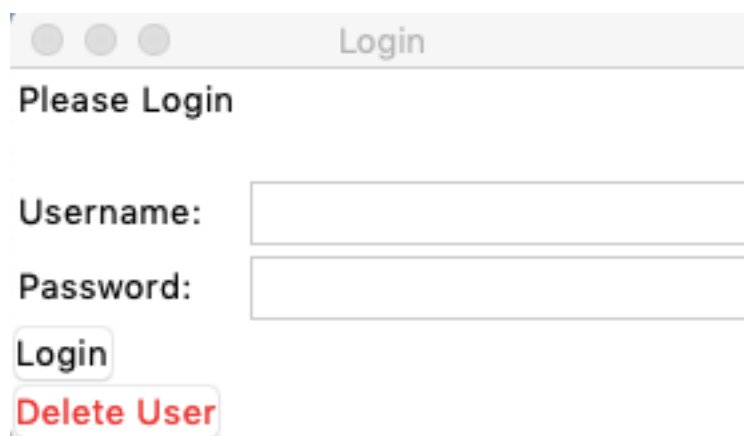
Please Enter new Credentials

New Username:

New Password:

Signup

This is the sign-up page for the user on our GUI. Once the user enters the username and password, the details will be stored in the database.

A screenshot of a 'Login' window. The title bar has three colored buttons (red, yellow, green) and the text 'Login'. The main content area has the text 'Please Login'. Below this, there are two input fields: 'Username:' and 'Password:'. At the bottom left, there are two buttons: 'Login' and 'Delete User' (in red text).

Login

Please Login

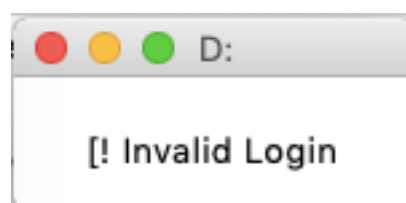
Username:

Password:

Login

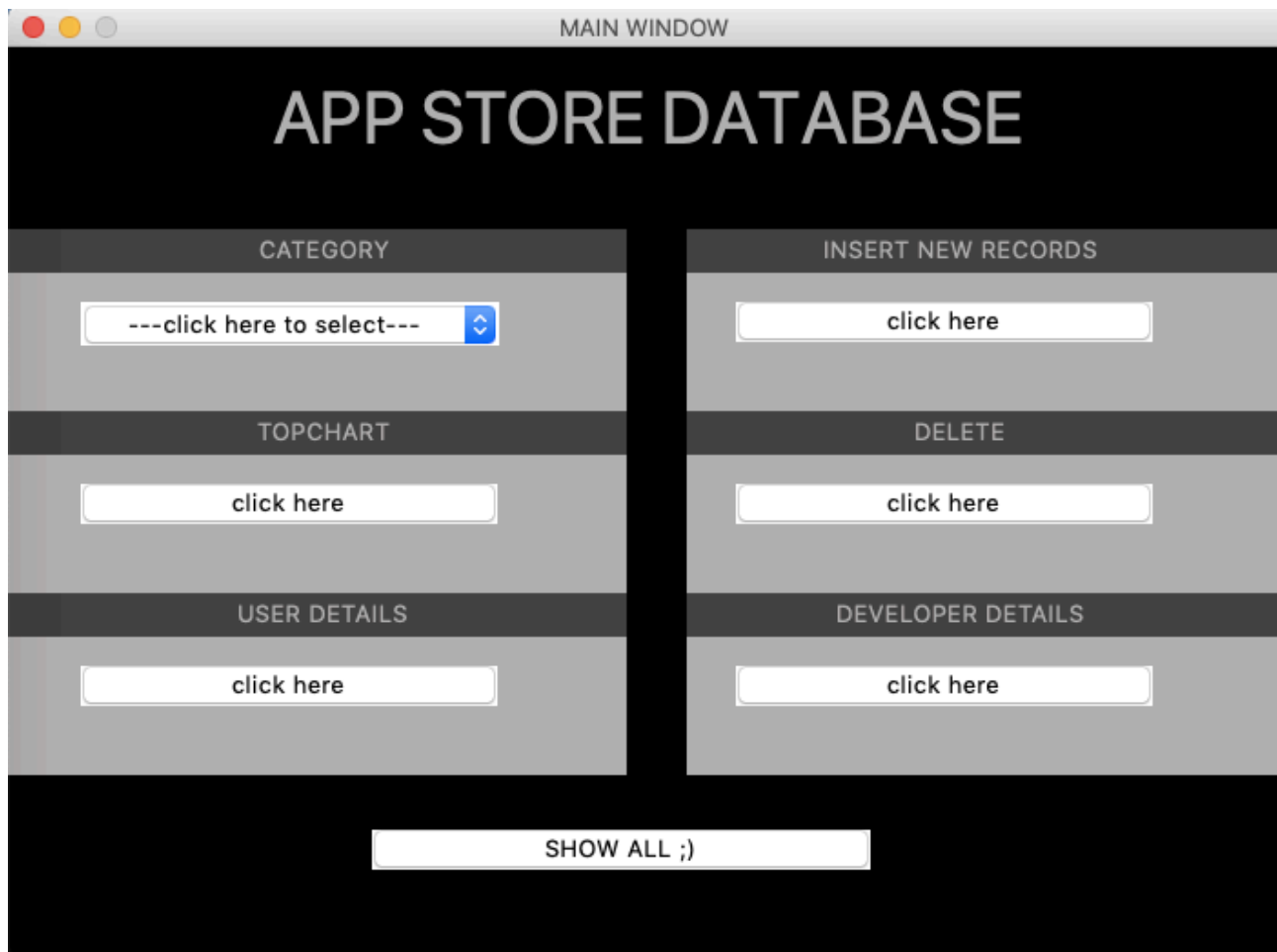
Delete User

This is the login-page. Once the user registers his details in the sign-up page, the login-page pops up and he has to enter the same details in the login-page or the error page occurs.

A screenshot of an error window. The title bar has three colored buttons (red, yellow, green) and the text 'D:'. The main content area has the text '[! Invalid Login]'.

D:

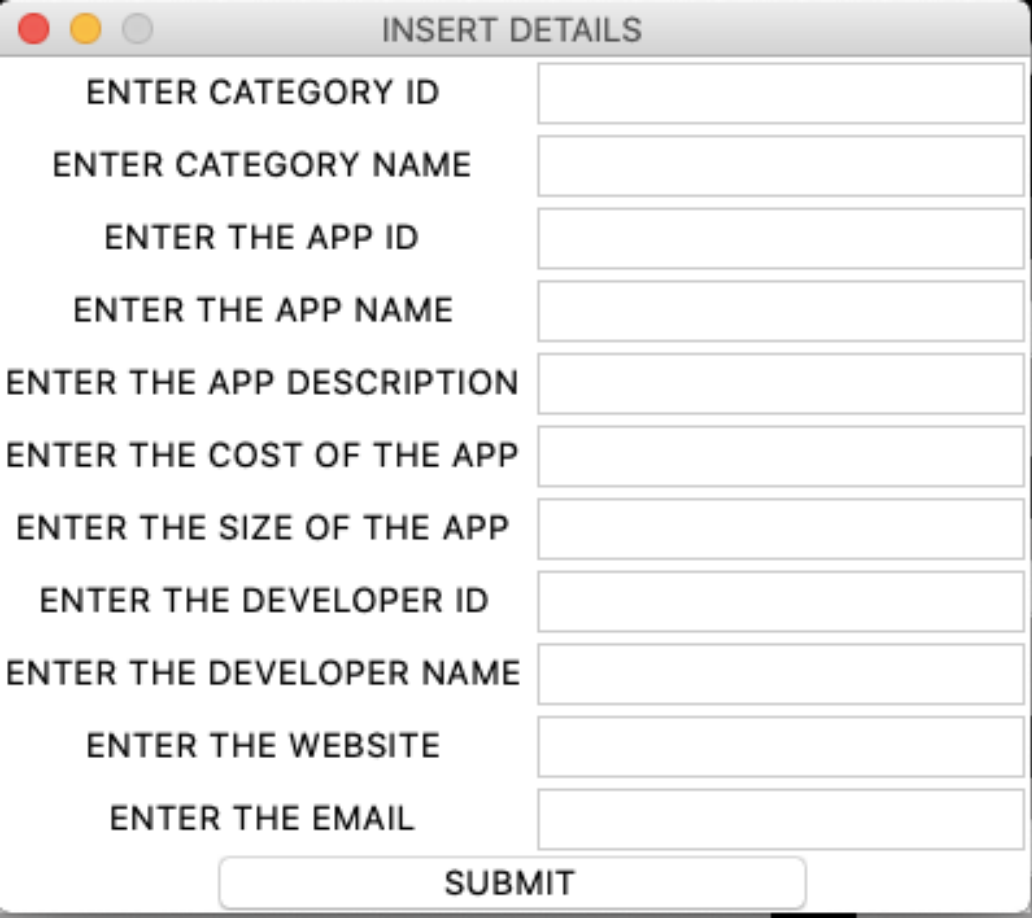
[! Invalid Login]



Once the user log-in the application this main window pops-up. It contains all the database operations that is needed to be done. When we click on the button for category the list box pop up which contains the 12 category of apps in its list.

If we select books in the category, another window containing the database information will pop-pop-up showing the below window.

books					
app_id	app_name	description	cost	size	c_id
100	kindle	read ebooks and	free	115MB	2
101	google play book	all books you love	free	53MB	2
102	WATTPAD	stories you will lo	free	75MB	2
103	goodreads	all in one app for	free	79MB	2
104	scribd	books,audiobook	free	102MB	2
105	lure	read chat fiction	free	33.8MB	2
106	webnoval	daily update fanta	free	68MB	2
107	hooked	chat stories	free	45MB	2
108	manga rock	the best manga re	free	83MB	2
109	pocket vedas	all the vedas	Rs.1,949	132MB	2
110	MegaReader	made with love fo	Rs.159	74Mb	2
112	NIV bible	bible	Rs.499	90MB	2
113	Wear Reader	read anywhere,an	Rs.159	18MB	2



A screenshot of a macOS-style window titled "INSERT DETAILS". The window has a title bar with three colored buttons (red, yellow, grey) on the left. The main content area contains ten text input fields, each preceded by a label: "ENTER CATEGORY ID", "ENTER CATEGORY NAME", "ENTER THE APP ID", "ENTER THE APP NAME", "ENTER THE APP DESCRIPTION", "ENTER THE COST OF THE APP", "ENTER THE SIZE OF THE APP", "ENTER THE DEVELOPER ID", "ENTER THE DEVELOPER NAME", and "ENTER THE WEBSITE". Below these fields is a "CLICK HERE" button. At the bottom of the window is a "SUBMIT" button.

If the user clicks on the insert button, this window pops-up. Showing the required details to be added in to the database. Once we enter all the information in the entry box and click submit. All the new information will be stored inside the database.



A screenshot of a macOS-style window titled "DELETE DETAILS". The window has a title bar with three colored buttons (red, yellow, grey) on the left. The main content area contains a "DELETE RECENT INSERTION" button, a "CLICK HERE" button, and a text input field labeled "ENTER THE app_id". Below the input field is a "CLICK HERE TO DELETE" button.

This window is opened when we click delete button. It asks for two types.

If the user wants to delete the recent insertion or if the user wants to delete the information about a particular app, then it asks for the app_id which is the Primary key of app table in the database.

ALL					
app_id	app_name	description	cost	size	c_id
50	geekbench	easy to make ber	Rs.79	29MB	1
51	tenor	gif making easy	FREE	48MB	1
52	myla	optimized for LEC	FREE	32MB	1
53	scanbot	scan pdf/jpg	FREE	88MB	1
100	kindle	read ebooks and i	free	115MB	2
101	google play book	all books you love	free	53MB	2
102	WATTPAD	stories you will lo	free	75MB	2
103	goodreads	all in one app for	free	79MB	2
104	scribd	books,audiobook	free	102MB	2
105	lure	read chat fiction	free	33.8MB	2
106	webnoval	daily update fanta	free	68MB	2
107	hooked	chat stories	free	45MB	2
108	manga rock	the best manga re	free	83MB	2
109	pocket vedas	all the vedas	Rs.1,949	132MB	2
110	MegaReader	made with love fo	Rs.159	74Mb	2
112	NIV bible	bible	Rs.499	90MB	2
113	Wear Reader	read anywhere,an	Rs.159	18MB	2
200	khan academy	you can learn any	free	233MB	3
201	TED	education	FREE	344MB	3
202	coursera	learn a new skill i	FREE	254MB	3
203	vocabulary	learn english	Rs.249	78MB	3
204	Duolingo	learn any languag	FREE	34MB	3
300	IMDb	trailers, reviews a	FREE	156MB	4
301	Dubsmash	dancing videos	FREE	298MB	4
302	Buzzfeed	quizzes,news,vid	FREE	69MB	4
400	google pay	tez	FREE	148MB	5
401	phonepe	upi, recharge and	FREE	73MB	5
402	BHIM	bharath finance	FREE	88MB	5
403	smart coin	currency convert	Rs.79	93MB	5
500	swiggy	easy ordering, fas	FREE	77MB	6

There is one more button for displaying everything in the app table and when that is clicked, this window will pop-up displaying all the apps of all the categories that have been stored in the database.

Conclusion

Once this project is completed it offers users the following functionalities: The app-store management system has to do with making appropriate effort to stop the rising problem of all manual database operation in order to enhance the operation of each types. This can be implemented in all kinds of common database .The system can also display the list of developers and their website for a particular flight on a particular date. It can also display the listed of passengers who are put on a waitlist in case Tickets are not available. This system reduce redundancy in the information required from the users to create user accounts etc.

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