CRICSCORER

Problem Definition:

Traditional cricket scoring methods present several significant challenges:

1. Manual scorekeeping is error-prone and time-consuming, requiring constant attention to complex calculations
2. Paper-based scoring systems lack real-time sharing capabilities and data backup
3. Existing digital solutions often lack user-friendly interfaces and comprehensive cricket-specific features
4. Score synchronization across different devices and locations is difficult

These challenges affect various stakeholders including:

- Match officials and scorekeepers
- Team management and players
- Cricket clubs and academies
- Tournament organizers
- Spectators and followers

Create an app which tackles these issues and solve the above problems.

Softwares used:

I) For Backend: Express JS
II) For Database: Postgres
III) For Frontend: React Native

Packages Used

For backend:

bcrypt: ^5.1.1

body-parser: ^1.20.2

cookie-parser: ^1.4.6

dotenv: ^16.4.5

express: ^4.19.2

jsonwebtoken: ^9.0.2

uuid: ^10.0.0

validator: ^13.12.0

For frontend:

Main Dependencies

Authentication & Security

@clerk/clerk-expo: ^1.2.7 (Authentication)

@clerk/clerk-react: ^5.2.8

expo-secure-store: ^13.0.2 (Secure storage)

UI & Icons

@expo/vector-icons: ^14.0.2

react-native-vector-icons: ^10.1.0

Navigation & Routing

@react-navigation/native: ^6.1.18

@react-navigation/stack: ^6.4.1

expo-router: ~3.5.18

expo-linking: ~6.3.1

Core Framework & Platform

expo: ~51.0.20

react: 18.2.0

react-dom: 18.2.0

react-native: 0.74.3

react-native-web: ~0.19.10

Storage & Data Management

@react-native-async-storage/async-storage: ^1.24.0

UI Components & Utilities

@react-native-community/datetimepicker: ^8.2.0

@react-native-picker/picker: ^2.7.7

expo-image-picker: ^15.0.7

react-native-gesture-handler: ~2.16.1

react-native-reanimated: ~3.10.1

react-native-safe-area-context: 4.10.1

react-native-screens: 3.31.1

Expo Utilities

expo-constants: ~16.0.2

expo-font: ~12.0.8

expo-splash-screen: ~0.27.5

expo-status-bar: ~1.12.1

expo-system-ui: ~3.0.7

expo-web-browser: ~0.3.3

Development Dependencies

Testing

jest: ^29.2.1

jest-expo: ~51.0.3

@types/jest: ^29.5.12

react-test-renderer: 18.2.0

@types/react-test-renderer: ^18.0.7

TypeScript & Type Definitions

typescript: ~5.3.3

@types/react: ~18.2.45

@types/react-native-vector-icons: ^6.4.18

Build Tools

@babel/core: ^7.20.0

Theory:

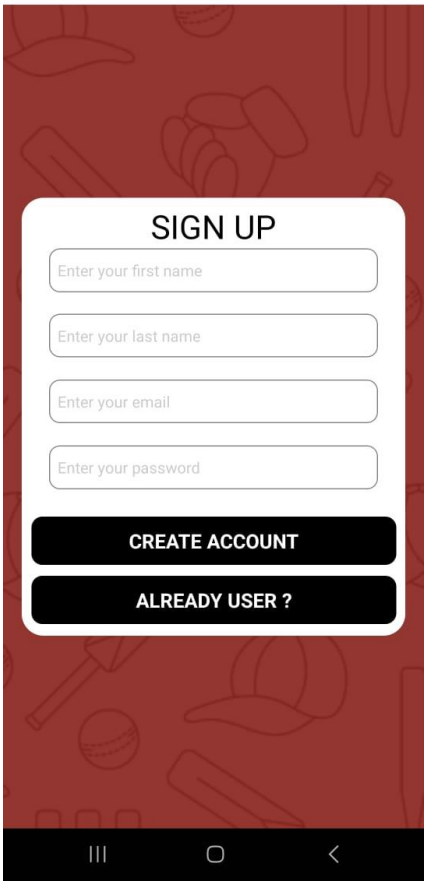
Cricket is a sport cherished globally, celebrated not just for its competitive nature but also for its detailed, data-rich. The game features comprehensive statistics and complex scoring method, necessitating precise scorekeeping to reflect its many intricacies. CricScorer is an app specifically crafted to cater these needs, providing a streamlined, effective, and user-friendly way to document, track, and analyze cricket scores in real time.

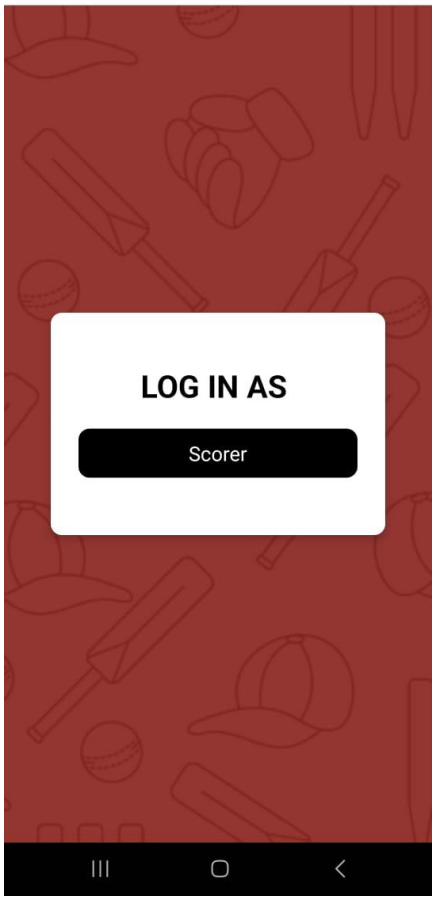
Conventional scorekeeping can often become cumbersome, involving complicated math and manual record-keeping. CricScorer makes this easier, enabling scorers to concentrate more on the unfolding game. With its intuitive and interactive interface, CricScorer allows users to maintain and retrieve accurate scores effortlessly. This app caters to all skill levels—from beginners keeping tabs on local matches to experienced professionals managing club tournaments or school competitions. Its responsive design and smooth functionality enable quick score entry, ensuring that no on-field action is overlooked.

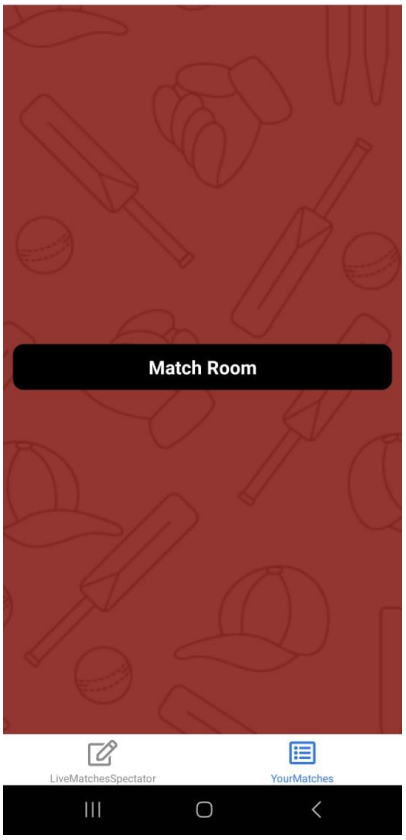
CricScorer utilizes a cutting-edge technology stack to create an engaging scoring experience. The backend, powered by Express.js, manages data processing and API interactions, facilitating real-time score updates and smooth server communication. PostgreSQL acts as the database, reliably and swiftly storing match details, player data, and statistics. The frontend, constructed with React Native, offers a cohesive interface compatible with both iOS and Android devices, providing users with an accessible, cross-platform experience.

By blending advanced technology with a thorough understanding of cricket scoring needs, CricScorer allows users to easily collect and analyze game data. Whether for keeping personal records, overseeing club-level competitions, or providing live updates for fans, CricScorer enhances the cricket experience, making scorekeeping quicker, simpler, and more enjoyable for all participants.

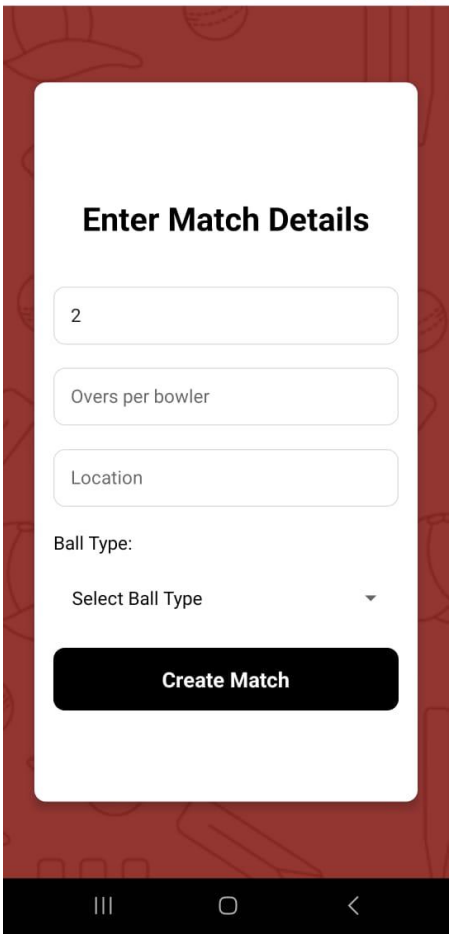
Screenshots:

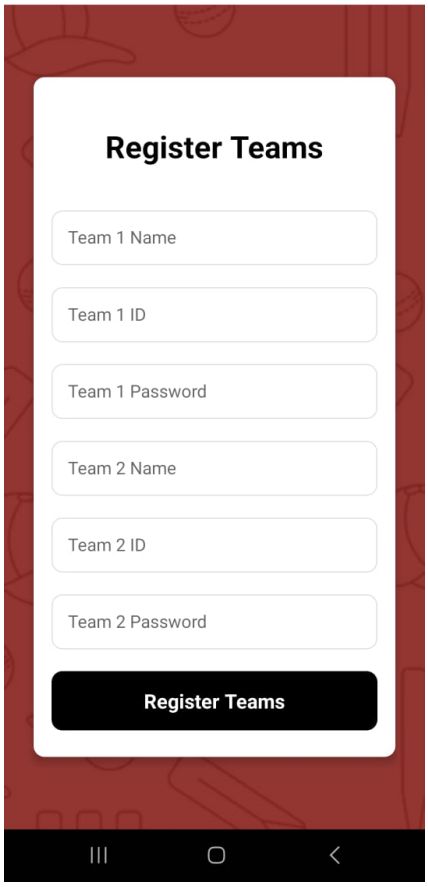


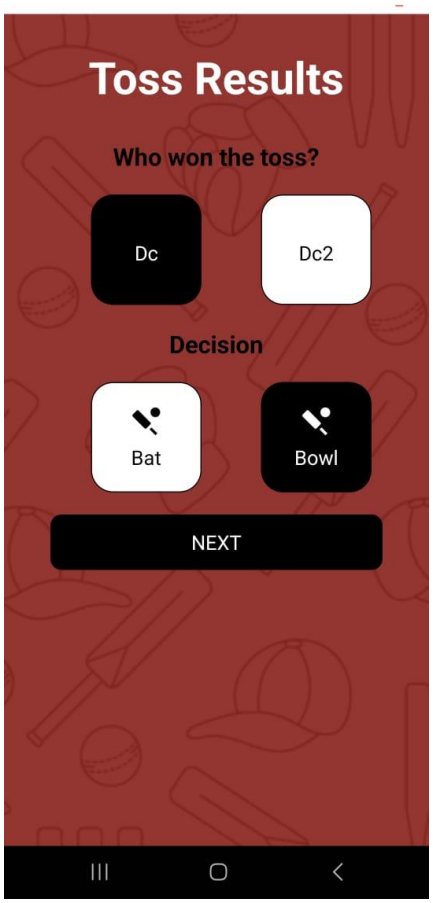

LOG IN AS
Scorer

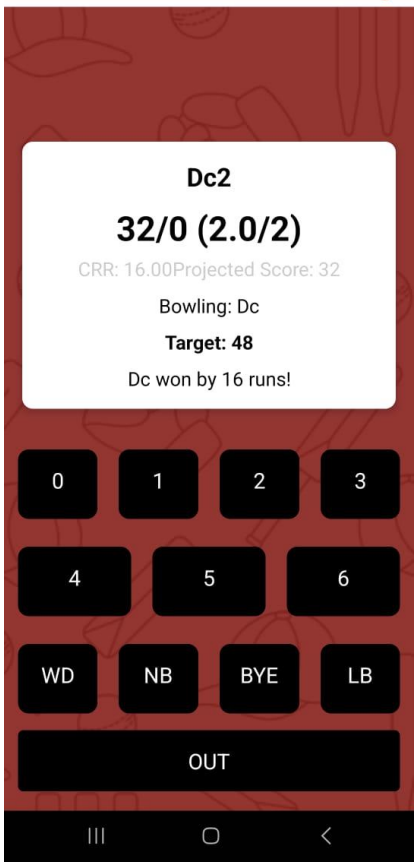

Match Room
LiveMatchesSpectator
YourMatches

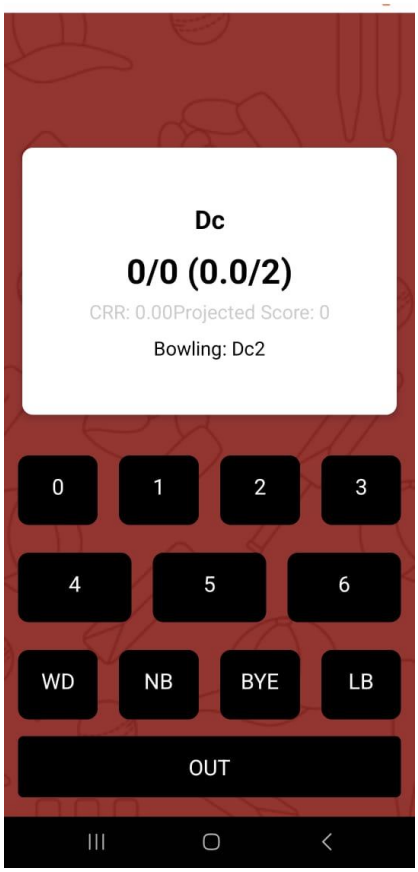

LOG IN
Enter your email
Enter your password
Login

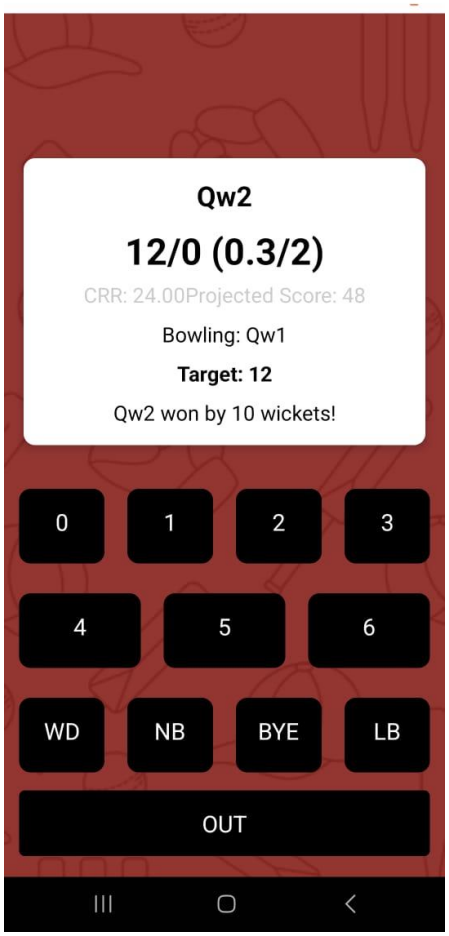

Enter Match Details
2
Overs per bowler
Location
Ball Type:
Select Ball Type
Create Match

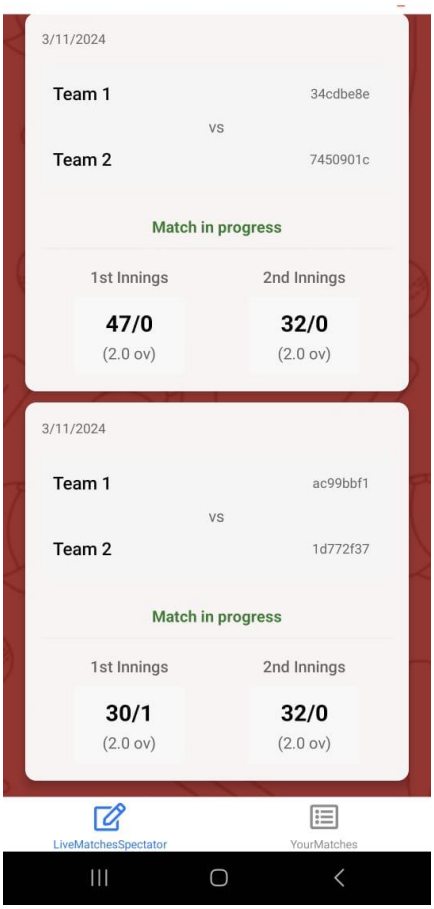

Register Teams
Team 1 Name
Team 1 ID
Team 1 Password
Team 2 Name
Team 2 ID
Team 2 Password
Register Teams

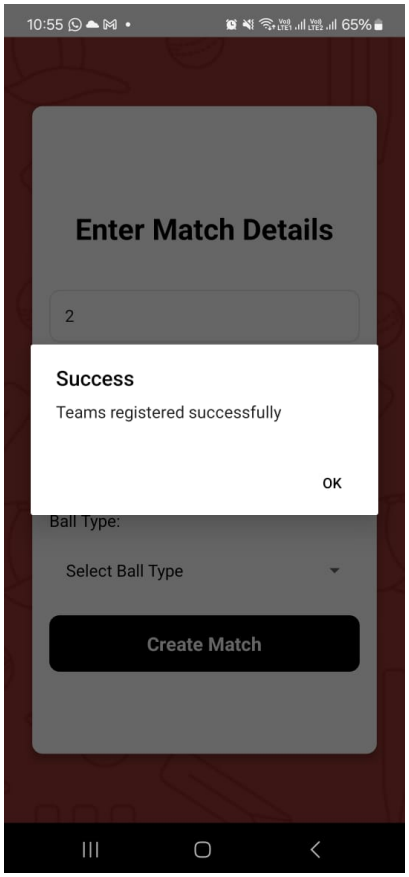

Toss Results
Who won the toss?
Dc
Dc2
Decision
Bat
Bowl
NEXT

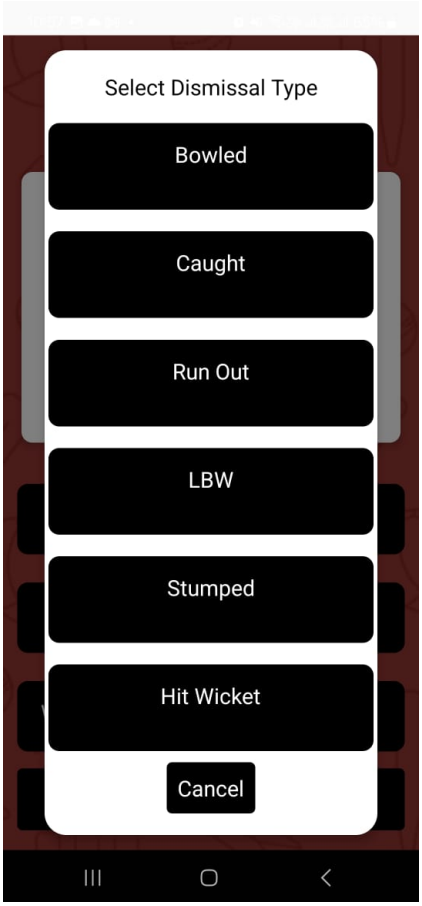

Dc2
32/0 (2.0/2)
CRR: 16.00Projected Score: 32
Bowling: Dc
Target: 48
Dc won by 16 runs!
0
1
2
3
4
5
6
WD
NB
BYE
LB
OUT

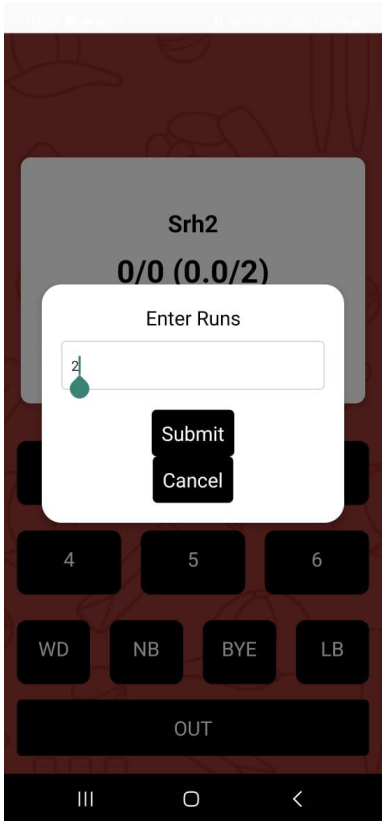

Dc
0/0 (0.0/2)
CRR: 0.00Projected Score: 0
Bowling: Dc2
0
1
2
3
4
5
6
WD
NB
BYE
LB
OUT

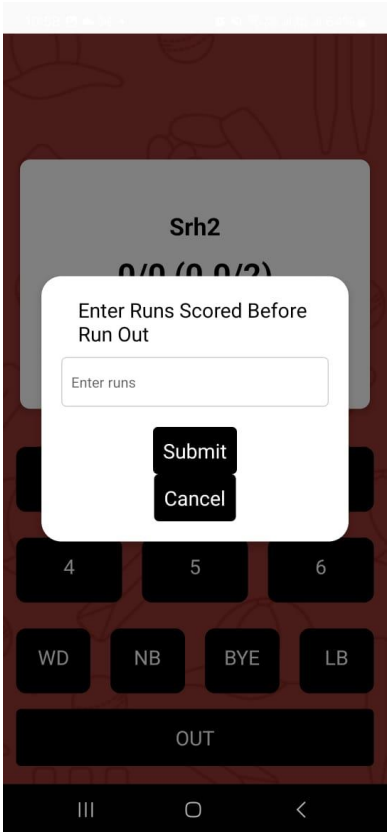

Qw2
12/0 (0.3/2)
CRR: 24.00Projected Score: 48
Bowling: Qw1
Target: 12
Qw2 won by 10 wickets!
0
1
2
3
4
5
6
WD
NB
BYE
LB
OUT


3/11/2024
Team 1
34cdbe8e
vs
Team 2
7450901c
Match in progress
1st Innings
2nd Innings
47/0
(2.0 ov)
32/0
(2.0 ov)
3/11/2024
Team 1
ac99bbf1
vs
Team 2
1d772f37
Match in progress
1st Innings
2nd Innings
30/1
(2.0 ov)
32/0
(2.0 ov)
LiveMatchesSpectator
YourMatches


10:55
65%
Enter Match Details
2
Success
Teams registered successfully
OK
Ball Type:
Select Ball Type
Create Match


Select Dismissal Type
Bowled
Caught
Run Out
LBW
Stumped
Hit Wicket
Cancel

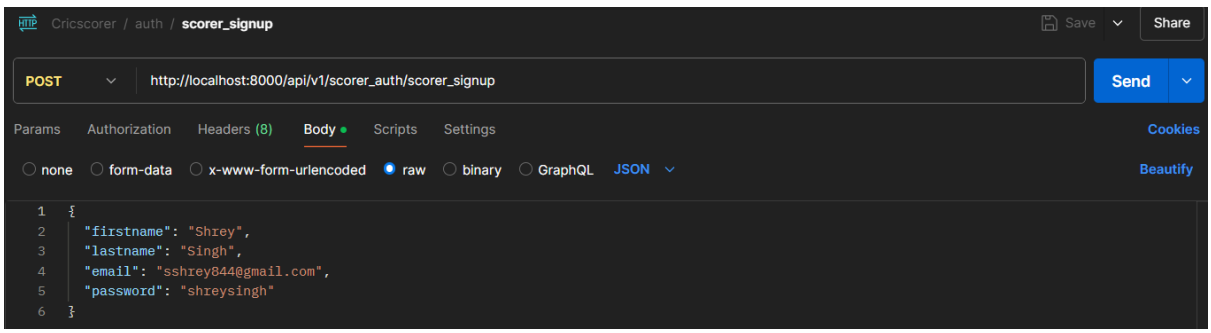




Backend Screenshots:

Backend endpoints:

Authentication:



Cricscorer / auth / **scorer_login**

Save | Share

POST | https://cricscorer-backend.onrender.com/api/v1/scorer_auth/scorer_login | Send

Params | Authorization | Headers (8) | Body | Scripts | Settings | Cookies

none | form-data | x-www-form-urlencoded | raw | binary | GraphQL | JSON | Beautify

```
{
    "email": "ramram69@gmail.com",
    "password": "12345678"
}
```

Cricscorer / auth / **scorer_logout**

Save | Share

GET | http://localhost:8000/api/v1/auth/scorer_logout | Send

Cricscorer / auth / **player_signup**

Save | Share

POST | http://localhost:8000/api/v1/player_auth/player_signup | Send

Params | Authorization | Headers (8) | Body | Scripts | Settings | Cookies

none | form-data | x-www-form-urlencoded | raw | binary | GraphQL | JSON | Beautify

```
{
  "name": "Shami",
  "email": "shami15@gmail.com",
  "password": "shami123",
  "battingHand": "Right",
  "bowlingStyle": "Fast",
  "role": "bowler"
}
```

Cricscorer / auth / **player_login**

Save | Share

POST | http://localhost:8000/api/v1/player_auth/player_login | Send

Params | Authorization | Headers (8) | Body | Scripts | Settings | Cookies

none | form-data | x-www-form-urlencoded | raw | binary | GraphQL | JSON | Beautify

```
{
    "email": "shami@gmail.com",
    "password": "shami123"
}
```

Team Endpoint:

Cricscorer / Team / **createTeam**

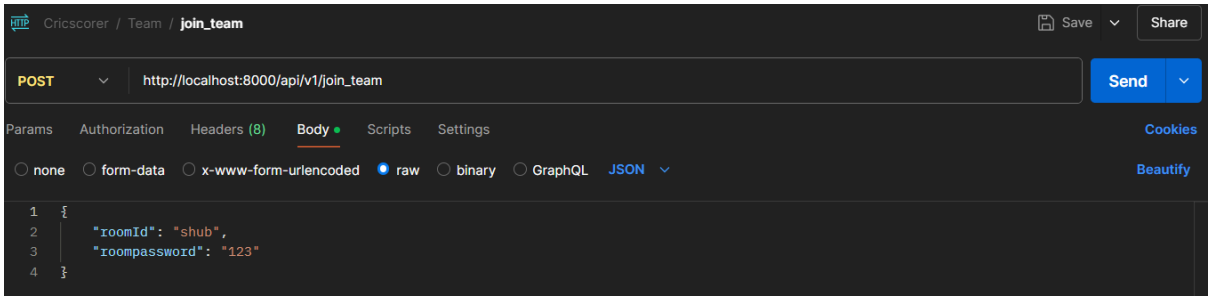
Save | Share

POST | http://localhost:8000/api/v1/teams | Send

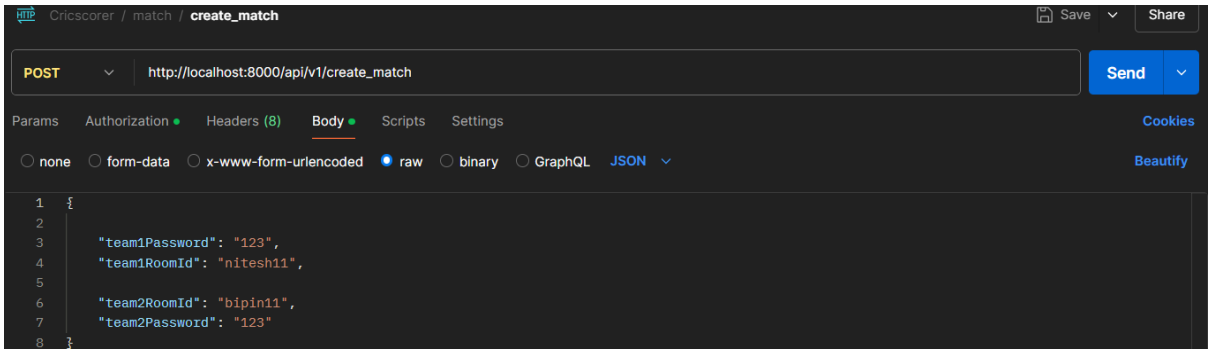
Params | Authorization | Headers (8) | Body | Scripts | Settings | Cookies

none | form-data | x-www-form-urlencoded | raw | binary | GraphQL | JSON | Beautify

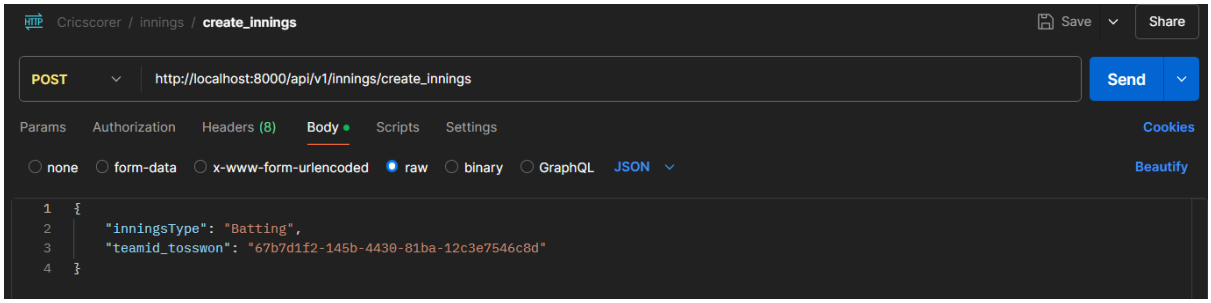
```
{
    "name": "bipin11",
    "roomId": "bipin11",
    "roompassword": "123"
}
```



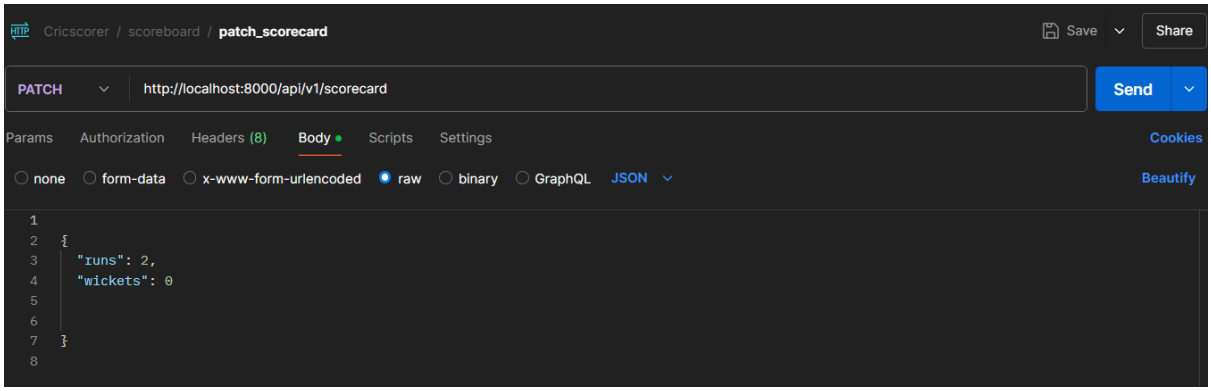
Match Endpoint:



Innings Endpoint:



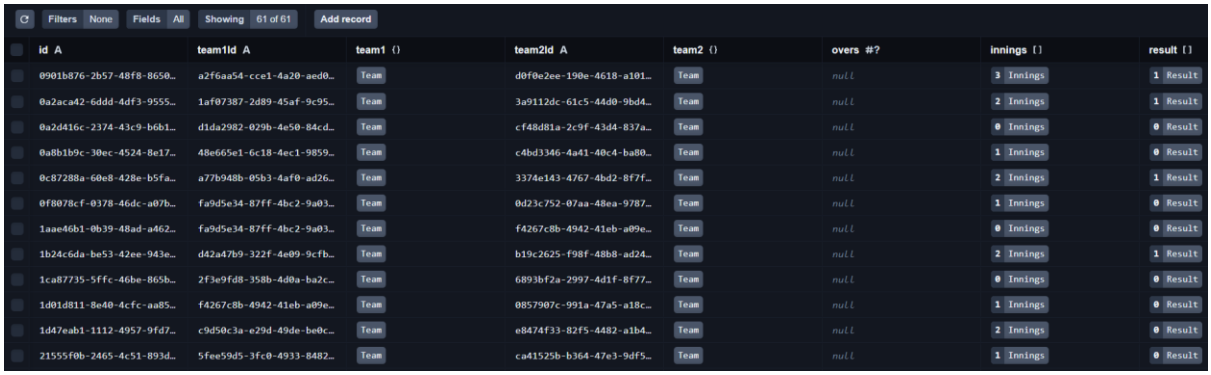
Scoreboard:



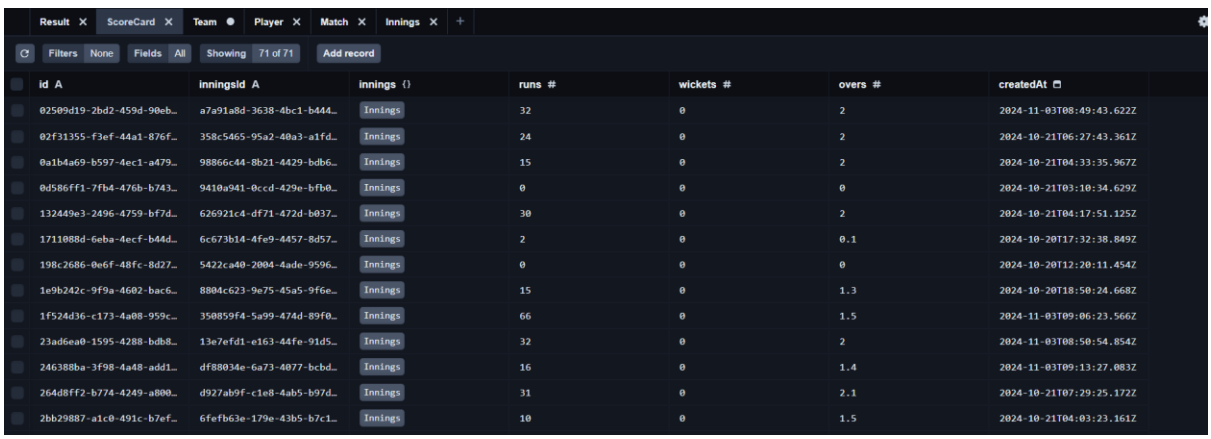
Results:

Database:

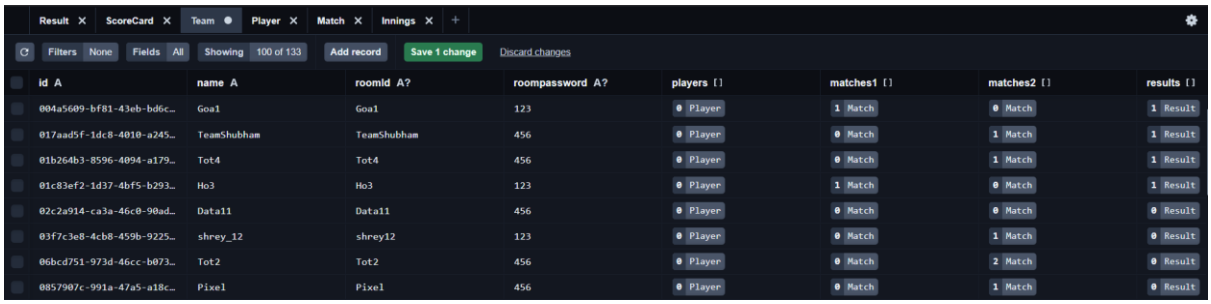
Match:



Scoreboard:

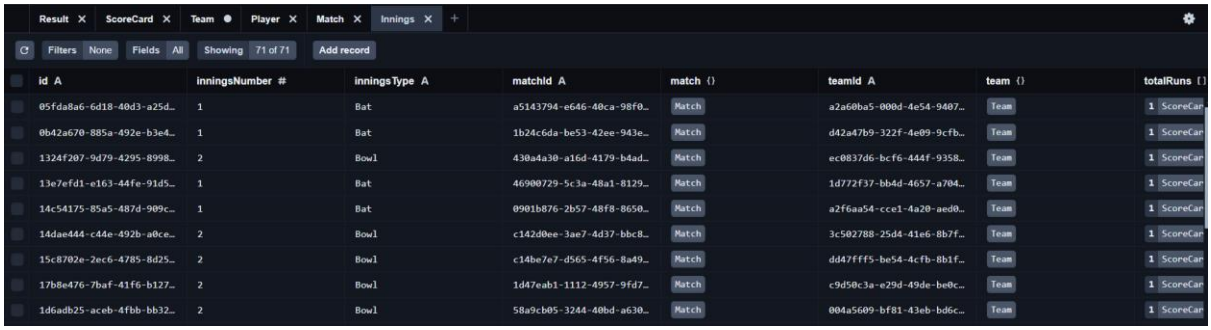


Teams:



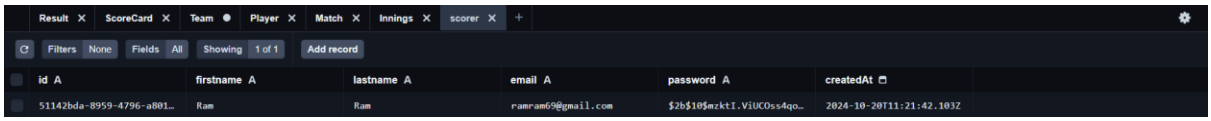
id	name	roomId	roompassword	players	matches1	matches2	results
004a5609-bf81-43eb-bd6c…	Goa1	Goa1	123	0 Player	1 Match	0 Match	1 Result
017aad5f-1dc8-4010-a245…	TeamShubham	TeamShubham	456	0 Player	0 Match	1 Match	1 Result
01b264b3-8596-4094-a179…	Tot4	Tot4	456	0 Player	0 Match	1 Match	1 Result
01c83ef2-1d37-4bf5-b293…	Ho3	Ho3	123	0 Player	1 Match	0 Match	1 Result
02c2a914-ca3a-46c0-90ad…	Data11	Data11	456	0 Player	0 Match	0 Match	0 Result
03f7c3e8-4cb8-459b-9225…	shrey_12	shrey12	123	0 Player	0 Match	1 Match	0 Result
06bcd751-973d-46cc-b073…	Tot2	Tot2	456	0 Player	0 Match	2 Match	0 Result
0857907c-991a-47a5-a18c…	Pixel	Pixel	456	0 Player	0 Match	1 Match	0 Result

Innings:



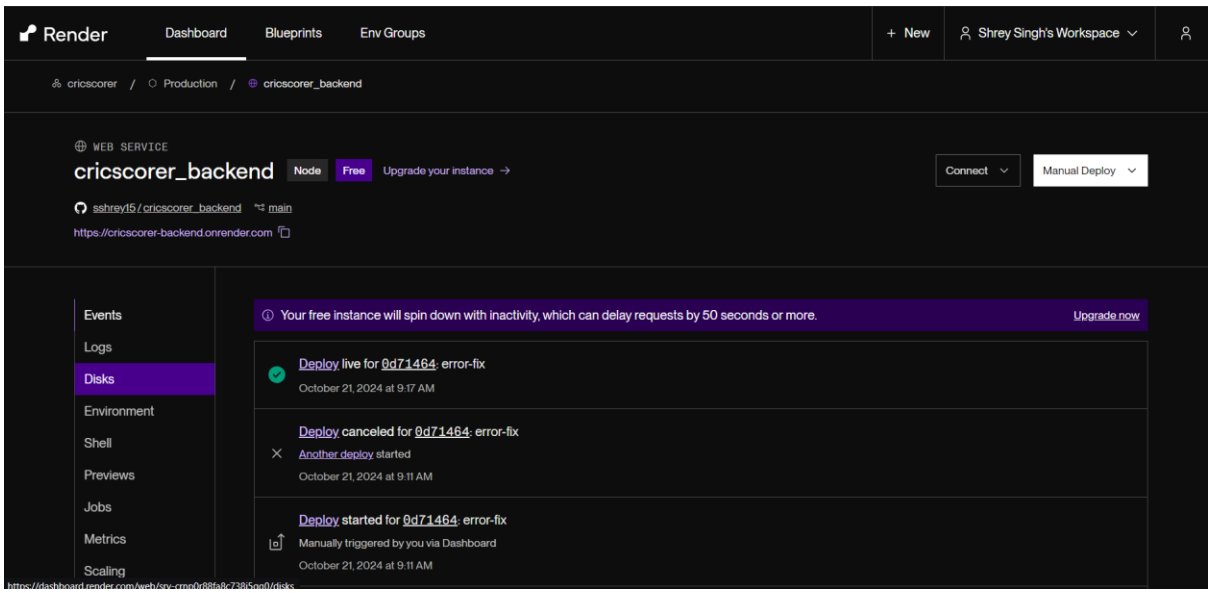
id	inningsNumber	inningsType	matchId	match	teamId	team	totalRuns
05fda8a6-6d18-40d3-a25d…	1	Bat	a5143794-e646-40ca-98f0…	Match	a2a60ba5-000d-4e54-9407…	Team	1 ScoreCar
0b42a670-885a-492e-b3e4…	1	Bat	1b24c6da-be53-42ee-943e…	Match	d42a47b9-322f-4e09-9cfb…	Team	1 ScoreCar
1324f207-9d79-4295-8998…	2	Bowl	430a4a30-a16d-4179-b4ad…	Match	ec0837d6-bcf6-444f-9358…	Team	1 ScoreCar
13e7efd1-e163-44fe-91d5…	1	Bat	46900729-5c3a-48a1-8129…	Match	1d772f37-bb4d-4657-a704…	Team	1 ScoreCar
14c54175-85a5-487d-909c…	1	Bat	0901b876-2b57-48f8-8650…	Match	a2f6aa54-cce1-4a20-aed0…	Team	1 ScoreCar
14dae444-c44e-492b-a0ce…	2	Bowl	c142d0ee-3ae7-4d37-bbc8…	Match	3c502788-25d4-41e6-8b7f…	Team	1 ScoreCar
15c8702e-2ec6-4785-8d25…	2	Bowl	c14be7e7-d565-4f56-8a49…	Match	dd47fff5-be54-4cfb-8b1f…	Team	1 ScoreCar
17b8e476-7baf-41f6-b127…	2	Bowl	1d47eab1-1112-4957-9fd7…	Match	c9d50c3a-e29d-49de-be0c…	Team	1 ScoreCar
1d6adb25-aceb-4fbb-bb32…	2	Bowl	58a9cb05-3244-40bd-a630…	Match	004a5609-bf81-43eb-bd6c…	Team	1 ScoreCar

Scorer:



id	firstname	lastname	email	password	createdAt
51142bda-8959-4796-a801…	Ram	Ram	ramram69@gmail.com	$2b$10$mzktI.ViUCOss4qo…	2024-10-20T11:21:42.103Z

Backend deployed on Render:



References:

- Airbnb clone with React Native (Youtube tutorial for learning React Native).
- React Native docs

App link :

https://expo.dev/artifacts/eas/qcDbJzviTqNMwjMFAT7wqi.apk

Conclusion: CricScorer addresses the common challenges of cricket scorekeeping by offering a reliable, user-friendly, and comprehensive digital solution. With real-time scoring, seamless data storage, cross-platform compatibility, and a range of cricket-specific features, CricScorer streamlines the scoring process for match officials, players, and spectators alike. Through the efficient integration of technologies like Express.js, PostgreSQL, and React Native, this app transforms traditional cricket scorekeeping into a modern, accessible experience.