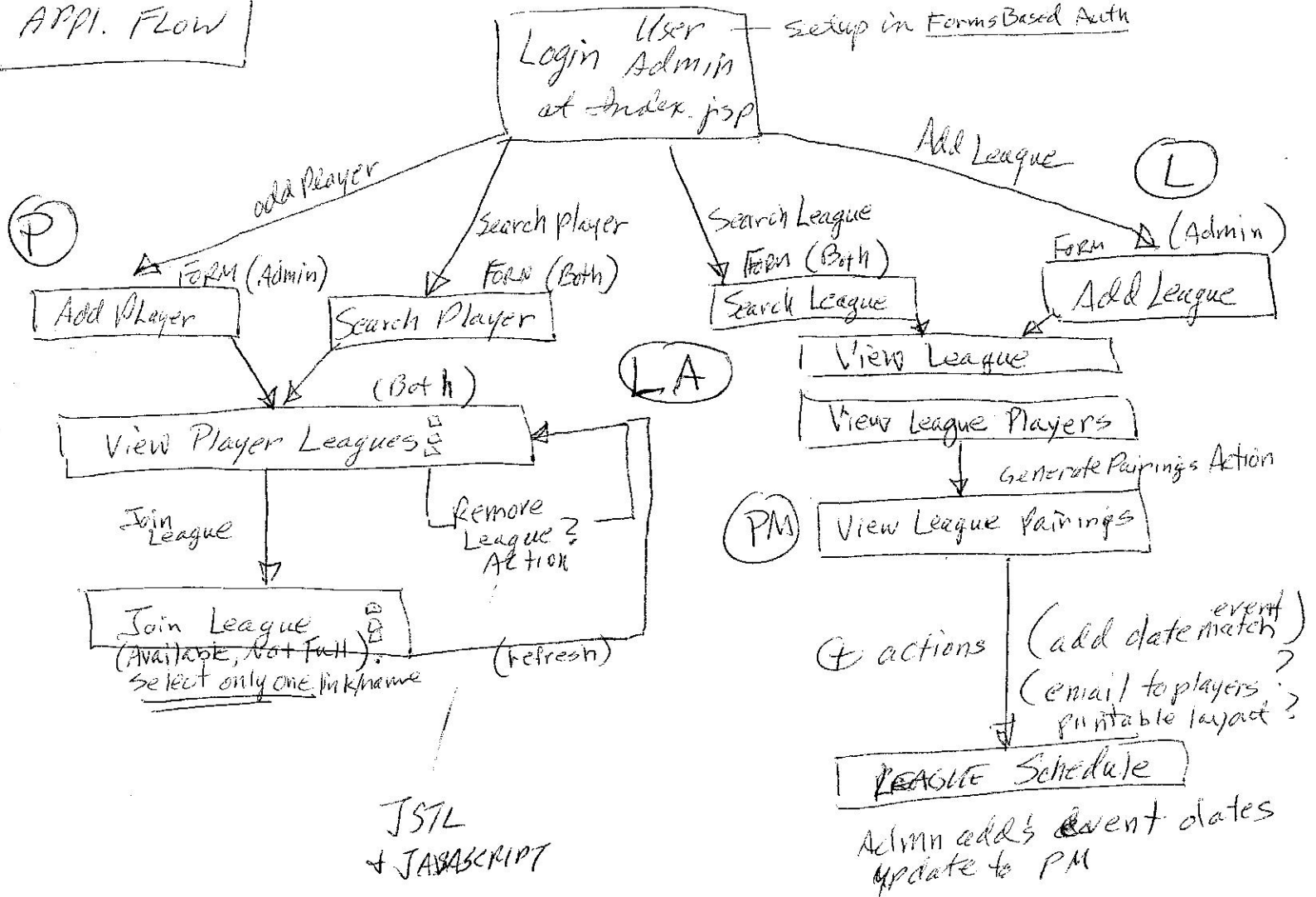


APPL. Flow



DB Design

① security - add admin, appuser - Forms Based Auth.
auth.

② App Tables

(P) Player

player-id
player-first-name
player-last-name
player-email (Query, Web Service)

(gender
level
phone...)

Bye - default

(L) League

league-id
league-name
num-players (reqd)
num-courts (reqd)
num-events (calcd)

(startdate
end date
status (active
type (Singles, Doubles)
level
location (Web Service)

(Query, web service)

(Props)

- 4	6	8
- 2	3	4
- 3	20	70

(must be even facility limit)

(derived Biz Logic)

(LA) League Assignment

League-assign-id
League-id (fk key) reqd
Player-id (fk key) reqd (up to num-players in League)
player-slot-num

(PM) Player Matches

~~player-match-id~~
match-id
match-player-1
match-player-2
match-event-num
match-event-date
match-court-num

(dbs
player 2, 3)

(as determined by league)
derived
(savery - update by Admin)
(by league)

derived by
Biz Logic

(MR) Match Results

match-result-id
match-id
winning-player-id
losing-player-id
total-game-score
winner-games-count
loser-games-count

(Sets, etc
Pct's calcd
Dbs, use
sets of
4 players = n, n

Player Match up

n = types to choose (players slots)

r = how many chosen, (how many play, courts 2, 3, 4) $\frac{n!}{(n-r)!(r)!} = \text{\#comb's}$

calculate combinations, for # of events, make that many pairings.

4 players = n

2 courts = r

3 events cal'd'd

$$\left\{ \begin{array}{l} 4 \text{ players} = n \\ 2 \text{ courts} = r \\ 3 \text{ events cal'd'd} \end{array} \right\} \frac{n!}{(n-r)!(r)!} =$$

r = can chose 2 courts

$$n = 4 \text{ players to chose} = \frac{4!}{2!2!} = \frac{24}{4} = 6 \text{ comb's pairs}$$

$\{1, 2, 3, 4\}$ 4 players - K, V Array of pairings, no dup's

$(1, 2) (3, 4) (1, 3) (2, 4) (1, 4) (2, 3)$ 6 pairs (matches)

event 1

event 2

event 3

6 pairs / 2 courts
= 3 events (dates)

date

Find Code / Algorithm pairings / load K, V pairs / players

Loop / Logic to create 6 match records (PM)

For each event in pairs (3)

For each court (2)

For pairing $\{1, 2, 3, 4\}$

(leave date null for Admin)

League Schedule

event/ Match Date	Match id	League Name		court #
		Player 1 (Vs)	Player 2	
	x	name P1	name P2	1
		P3	P4	2
		P1	P3	1
		P2	P4	2
		P1	P4	1
		P2	P3	2