

# Object	Type	Required?	Min	Max	Restrictions	Notes
<b>1 Boat</b>						
boat name	string		1	256		
builder (manufacturer)	string		1	256		
model	string		1	256		
build year	date		1850	current year		
engine manufacturer	string		1	256		
engine hp (for each engine)	int		0	20000		
engine description	string		1	512		
engine year	date		1850	current year		
top speed	int		0	200 mph		
length in feet	int		3	300 feet		
height in feet	int		3	300 feet		
weight in lb	int		0	100000 lb		limits TBD
guest capacity	int		0	300		max number of people that are allowed to sail on board
number of bedrooms	int		0	30		
number of bathrooms	int		0	30		
color	string		1	256		
type (sail, motor, other)	set				list: sail, motor, other	
min_height	int				feet	when the mast of cabin is lowered usefull when going under bridges
draught	int					limits TBD
autonomy time	int		0	unlimited	hours	limits TBD
autonomy distance	int		0	unlimited	miles	limits TBD
amenities	set				of strings	complete features list TBD
shower	set				Y/N	
toilets	set				Y/N	
drinking water	set				Y/N	
fridge	set				Y/N	
tv	set				Y/N	
internet	set				Y/N	
navigation systems	set				Y/N	
(MORE TO BE ADDED HERE)						
registered in what state	set				US states	might have to add international locations later
location on map	set					
latitude	double					limits TBD
longitude	double					limits TBD
marina location	string		1	256		
pictures						
full	string		1	256		
full size 1	string		1	256		
full size 2	string		1	256		
thumbnails size 1	string		1	256		
thumbnails size 2	string		1	256		
thumbnails size 3	string		1	256		
owner id	int					foreign key
description	string		1	4096		max size of text still TBD
restrictions	set				list of restrictions	
smoking	set				Y/N	
shoes type (e.g. white soles only?)	string		1	256		
kids	set				Y/N	
number of guests	int		1	200		TBD
captains						
required captain?	set				list of captain ids	TBD (probably best if it's a list of captain ids)
preferred captains?	set				list of captain ids	
blacklist captains?	set				list of captain ids	
reviews	set				list of reviews	
by user	int				user id	
average rating	double		0	5		
calendar						
availability	datetime					this should actually link to a calendar table
price for each available day	double					
insurance status						TBD how insurance state is stored
uninsured? (needs insurance)						
insured for set amount of outings (e.g. 10)						
insured for a time period (e.g. 1 year)						
insurance info (may duplicate boat info)						
response stats:						
average rate (percentage)	double		0	100		
average time (percentage)	double		0	100		
average time (value)	double		0	48 h		
<b>2 Captain</b>						
user information	int					same as a regular user (get from user_id) + extra info below
description	string		1	4096		
license type	set					(can he take people out?)
license size restrictions	string		1	4096		(e.g. can drive boats up to 50ft)
license other restrictions	string		1	4096		(e.g. can't drive at night)
map location						
latitude	double					limits TBD
longitude	double					limits TBD
radius of availability	double				mi	can work on all boats included in the area with center at location and this radius
reviews						
by user	int				user id	
average rating	double		0	5		
calendar						
availability	datetime					
price for each available day	double					
boat requests response stats:						
total requests	int					
total responses	int					
total time to respond	int				h	
average rate (percentage)	double				percentage	
average time (percentage)	double				percentage	
boat info response stats						(info about the boat or other info)
total requests	int					

total responses	int		
total time to respond	int		
average rate (percentage)	double		h
average time (percentage)	double		percentage

### 3 User

name				
first	string	1	256	
middle (opt)	string	1	256	
last	string	1	256	
corporate name	string	1	256	
birthdate (opt)	date			
address				
address1 (# + street)	string	1	256	
address2 (apt # or other)	string	1	256	
state	string	1	256	pick from existing states
city	string	1	256	
zip code	int	min zip	max zip	we need to get the actual zip limits
country	string	1	256	pick from existing countries
contact info				
phone numbers				
mobile	int			
home	int			
email addresses	string			
fax	int			
occupation (opt)	string			
income (opt)	int	1	1000000	pick from a list of income ranges
sailing experience	int	0	100	years
description	string	1	4096	
pictures				
full	string	1	256	
full size 1	string	1	256	
full size 2	string	1	256	
thumbnails size 1	string	1	256	
thumbnails size 2	string	1	256	
thumbnails size 3	string	1	256	
reviews	set			list of reviews
messages	set			list of messages

link to reviews by this user; TBD if we need this (could get from a SELECT)

link to reviews by this user; TBD if we need this (could get from a SELECT)

### 4 Messages

id	int		
date	datetime		
from	int		user id
to	int		user id
reference boat	int		id
reference captain	int		id
reference transaction	int		id
content	string		
status	string		list: delivered, pending, error

text of the message

### 5 Transaction

boat id	int		
owner approval status:			
requested	set		Y/N
date/time	datetime		
max reponse time	double		h
approved	set		Y/N
date/time	datetime		
no response	set		Y/N
rejected	set		Y/N
date/time	datetime		
reason	string	1	4096
changes requested	set		Y/N
issues to be solved	set		Y/N
captain id	int		
captain approval status:			
requested	set		Y/N
date/time	datetime		
max reponse time	double		h
approved	set		Y/N
date/time	datetime		
no response (max reponse time expired)	set		Y/N
rejected	set		Y/N
date/time	datetime		
reason	string	1	4096
changes requested	set		Y/N
issues to be solved	set		Y/N
price			
boat	double		
captain	double		
insurance	double		
sailor comission	double		
dates			
start date	datetime		
end date	datetime		
details			
instructions	string	1	4096
restrictions	string	1	4096
other info	string	1	4096
status:			
initiated	set		Y/N
cancelled	set		Y/N
missing info (from user?)	set		Y/N
awaiting approval	set		Y/N
approved	set		Y/N
rejected	set		Y/N
money on hold	set		Y/N

(max reponse time expired)

money cashed	set	Y/N	
pending issues	set	Y/N	
finalized	set	Y/N	
customer service status:			
none	set	Y/N	
issues with boat owner	set	Y/N	e.g. no insurance, not there, condition, other
issues with captain	set	Y/N	e.g. insurance, time there, attitude, other
issues with renter	set	Y/N	e.g. info needed, verification needed, late there, smoking on boat
insurance event	set	Y/N	e.g. boat damage
money status			
no money	set	Y/N	
on hold	set	Y/N	
received	set	Y/N	
disbursed: to owner, captain, sailo	set	Y/N	
deposit: returned, used	set	Y/N	
type: credit card, paypal?	set	Y/N	
all done	set	Y/N	

#### 6 Insurance request

date	datetime		
referred by	string		
boat name	string		
client info			
name	string		
corporate name	string		
address	string		
date of birth	datetime		
city	string		
state	string		
zip	int		
fax	int		
phone	int		
email	string		
vessel description			
year	int		
length	int		
manufacturer	string		
model	string		
engine			
year	int		
hp (each)	int		
manufacturer	string		
top speed	int		
material	set	list: fg, wood, aluminum, steel, other	
engines	string	list: single, twin, triple	
fuel	string	list: gas, diesel	
built in systems	set	list: co2, halon, none	
navigation systems	set	list: vhf, radar, auto pilot, depth finder, gps, ssb, weather fax, plotter	
coverage requested			
navigation limits			TBD
mooring location	string		
intended use	set	list: personal, charter	
charter description:			
number of guests	int		
crew	int		
number of charters	int		
other details	string		
hull id or doc#	string		
registered	set	Y/N	
purchase price	int		
date of purchase	date		
insurance value	int		
liability limit	int		
dinghy/tender			TBD
paid crew (f/t & p/t)			TBD
date last survey	date		
surveyor	string		
market value	int		
replacement value	int		
operator information			
occupation	string		
previous boats owned/operated	int	number of boats?	
boating courses	set	list: uscg, usps, asa, usgs license, other	
any losses ever???	int	Y/N	
year, value, description	string		
client age	int		
years ownership experience	int		
previous insurance co.	string		
expiration date	datetime		
expiraition premium	int		
loss payee	int		
additional insured	int		
comments	string		

#### 7 Communication:

owner/captain	int	id (link to existing table)	
my boats	set	link to existing table	
my transactions	set	link to existing table	
my insurances	set	link to existing table	
my messages	set		(communication with customers)
user	int	id (link to existing table)	
my transactions	set	link to existing table	
my messages	set	link to existing table	(communication with owners/captains)