

cath_x_atomic_structure		
PK	Id	SERIAL
	cath_domain_name	TEXT
	class_number	INT
	arquitecture_number	INT
	topology_number	INT
	homologous_superfamiy_number	INT
	S35_sequence_cluster_number	INT
	S60_sequence_cluster_number	INT
	S95_sequence_cluster_number	INT
	S100_sequence_cluster_number	INT
	S100_sequence_count_number	INT
	domain_length	INT
	structure_resolution	FLOAT
FK	atomic_structure_id	INT
	chain_character	TEXT
	domain_number	INT

volume_filter		
PK	id	SERIAL
	name (UNIQUE)	TEXT

atomic_structure_type (enum)		
PK	id	SERIAL
	name	TEXT

atomic_structure		
PK	id	SERIAL
	pdb_id	TEXT
	parent	INT (PK Null asi mismo)
	atomic_structure_type_id	INT
	secuence	TEXT
	atoms	TEXT
	atoms_count	INT
	aminoacid_count	INT
	png_img_3d	TEXT
	gif_img_3d	TEXT
	numbers_descriptor	JSON

atomic_structure_x_emd_entry		
FK/PK	atomic_structure_id	INT
FK/PK	emd_entry_id	INT

map_information		
PK	id	SERIAL
	file_information	JSON
	data_type	TEXT
	num_columns	INT
	num_rows	INT
	num_sections	INT
	origin_col	INT
	origin_row	INT
	origin_sec	INT
	limit_col	INT
	limit_row	INT
	limit_sec	INT
	spacing_col	INT
	spacing_row	INT
	spacing_sec	INT
	cell_a	JSON
	cell_b	JSON
	cell_c	JSON
	cell_alpha	JSON
	cell_beta	JSON
	cell_gamma	JSON
	axis_order_fast	CHAR(1)
	axis_order_medium	CHAR(1)
	axis_order_slow	CHAR(1)
	minimum	FLOAT8
	maximum	FLOAT8
	average	FLOAT8
	std	FLOAT8
	space_group_number	INT
	details	TEXT
	pixel_x	JSON
	pixel_y	JSON
	pixel_z	JSON
	countour_level	FLOAT8
	annotation_details	TEXT

representation		
PK	id	SERIAL
	name (UNIQUE)	TEXT

search_history		
PK	id	SERIAL
	user_id	TEXT
	date_time	TIMESTAMP
	ip	TEXT
FK	emd_entry_id	INT
	name_file	TEXT
	counter_level	FLOAT8
FK	representation_id	INT
FK	volume_filter_id	INT
	resolution_filter_min	FLOAT8
	resolution_filter_max	FLOAT8

time_stamp		
FK/PK	emd_entry_id	INT
	modification	DATE
	map_file	TEXT
	xml_file	TEXT
	image_file	TEXT

update		
PK	last_update	DATE

emd_entry		
PK	id	INT
	full_name	TEXT
	acronym	TEXT
	volume	FLOAT8
	resolution	FLOAT8
	image_url	TEXT
	png_img_3d	TEXT
	gif_img_3d	TEXT
	xml_url	TEXT
	map_url	TEXT
FK	map information id	INT

descriptor		
FK/PK	emd_entry_id	INT
FK/PK	type_descriptor_id	INT
	numbers	JSON

type_descriptor		
PK	id	SERIAL
	name	TEXT
	description	TEXT

user_role		
PK	id	SERIAL
	role	TEXT

user			
PK	id	TEXT	
	name	TEXT	
	email	TEXT	
FK	role	INT	

benchmark_history		
PK	id	SERIAL
	date_time	TIMESTAMP
	ip	TEXT
FK	user_id	TEXT
FK	representation_id	INT
FK	volume_filter_id	INT
	top_results	INT
	emd_list	JSON