

Parki STD

TC#	Section	Test Case Name	Severity	Preconditions	Steps	Expected Result
1.1	Open Parking	Open new parking (valid)	High	Driver user exists; slot is free	1. Login as driver2. Open parking with valid car/slot	Parking appears in active sessions
1.2	Open Parking	Open parking - slot unavailable	High	Slot occupied by another car	1. Occupy slot A2. Open parking for car B, same slot	Error: "Slot already occupied"
1.3	Open Parking	Open parking - duplicate car	Critical	Car X parked by driver1	1. Driver1 parks car X2. Driver2 attempts same car	Error: "Duplicate parking prevented"
1.4	Open Parking	Open parking - invalid plate	Medium		1. Attempt to open parking with plate '12abc#@' or '12abc#%8'	Error: "Invalid license plate format"
1.5	Open Parking	Open parking - missing fields	Medium		1. Submit form with missing car/slot	Error on required fields
1.6	Open Parking	Verify success message	High	Parking opened successfully	1. Open valid parking session	UI shows "Parking started"
1.7	Open Parking	Verify parking appears in dashboard	High	Parking opened successfully	1. Open parking2. Refresh dashboard	Car & slot present in open sessions
1.8	Open Parking	Server response structure	Medium	API available (if exists)	1. Inspect response for POST /start	JSON/HTML has all fields (car, slot, user, etc.)
1.9	Open Parking	Error response structure	Medium		1. Submit invalid data2. Inspect response	Error fields/messages present
2.1	Close Parking	Close active parking	High	Active parking exists	1. Start parking2. End parking	Session removed from active, appears in history
2.2	Close Parking	Parking in history	High	Session ended	1. End session2. Go to history page	Car/slot/status shown in history
2.3	Close Parking	Double close not allowed	Medium	Session ended	1. End parking2. Try to end again	Error: "Session already ended" / no action
2.4	Close Parking	Close unowned parking	Medium	Session owned by another user	1. Attempt to end other's session	Permission denied / error
3.1	Close Validation	Close parking not opened	Medium	No session with given ID	1. Attempt to end non-existing session	Error: "Session not found"
3.2	Close Validation	Close parking with wrong user	Medium	Session owned by another user	1. Try to end other's session	Error / denied
3.3	Close Validation	Close parking, verify in history	High	Active session exists	1. End parking2. Check open sessions3. Check history	Session gone from active, appears with "ended" in history
4.1	User Management	Add new user (driver)	High	Admin logged in	1. Add user2. Check users list	User in list
4.2	User Management	Add duplicate user	Medium	User exists	1. Try to add same username again	Error: "Username already exists"
4.3	User Management	Delete user with no parking	Medium	User exists, no active/history	1. Add user2. Delete user	User removed from list
4.4	User Management	Delete user with active parking	High	User has active session	1. Try to delete user	Error: "Cannot delete user with active sessions"
4.5	User Management	Delete user with closed history	Medium	User has only ended sessions	1. Add user2. Open & close parking3. Delete user	User deleted
5.1	Boundary	Minimum plate length	High		1. Try to open parking with 7-digit plate	Error: "Invalid license plate format"
5.2	Boundary	Maximum plate length	High		1. Try to open parking with 9+ digit plate	Error: "Invalid license plate format"
5.3	Boundary	Plate with special chars	Medium		1. Plate "12!@#%\$8"	Error: "Invalid license plate format"
5.4	Boundary	Plate with Hebrew/English	Medium		1. Plate "1234abcd" or "12345אבגד"	Error: "Invalid license plate format"
5.5	Boundary	Slot number 0	Medium		1. Open parking slot=0	Error: "Invalid slot"
5.6	Boundary	Slot number max+1	Medium	System max known	1. Open parking slot=max+1	Error: "Slot does not exist"
5.7	Boundary	Username too short	Medium		1. Add user "ab"	Error: "Username too short"
5.8	Boundary	Username too long	Medium		1. Add user (over 20 chars)	Error: "Username too long"
5.9	Boundary	Password empty	High		1. Add user with empty password	Error: "Password required"
5.1	Boundary	Password boundary length	Medium		1. Add user with min/max allowed password	Success or error as per allowed
5.11	Boundary	First/last valid slot	Medium	System min/max known	1. Open parking on slot=12. On slot=max	Parking opens successfully
5.12	Boundary	Multiple sessions per user	High		1. Same user tries to open >1 session	Prevented; only one allowed
6.1	Fees, Time, Files	Parking fee - minimum time	Medium		1. Start/end parking after 1 minute	Fee rounded/calculated as per rules
6.2	Fees, Time, Files	Parking fee - very long duration	Medium		1. Start/end after 48 hours	Fee calculated correctly
6.3	Fees, Time, Files	Parking fee - boundary value	Medium		1. End session at exactly 1/2 hours	Fee is exact, no rounding error
6.4	Fees, Time, Files	Fee for unknown vehicle type	Medium		1. Create parking with invalid type	Error: "Vehicle type not found"
6.5	Fees, Time, Files	Attach image (valid)	Medium		1. Upload valid image (jpeg/png <2MB)	Image saved, linked to session
6.6	Fees, Time, Files	Attach image (invalid type)	Medium		1. Upload .txt/.exe as parking image	Error: "Invalid file type"
6.7	Fees, Time, Files	Attach image (oversized file)	Medium		1. Upload image >2MB	Error/rejection
6.8	Fees, Time, Files	Open parking with ancient/future time	Low	API allows editing times	1. POST start time past/future	Error or system corrects
6.9	Fees, Time, Files	Rapid open/close - no crash	Medium		1. Open and close sessions rapidly	System handles, no crash/data issue
6.1	Fees, Time, Files	Fee/Time overflow	Low		1. Force huge fee/time value (simulate)	System stable; handled gracefully

Parki DB Validations				
Test Case Name	Table/Field	Validation Description	Expected DB State	Query Example
Open new parking (valid)	ParkingSession	חניה חדשה נפתחת, יש שורה חדשה עם end_time ריק, car_plate נכון, slot נכון	row with car_plate=X, slot=Y, end_time=NULL	SELECT * FROM ParkingSession WHERE car_plate=? AND slot=? AND end_time IS NULL;
Open parking - slot unavailable	ParkingSession	אסור שתיווצר שורה חדשה עם אותו slot (אם כבר תפוס)	No new row created	SELECT COUNT(*) FROM ParkingSession WHERE slot=? AND end_time IS NULL;
Open parking - duplicate car	ParkingSession	אסור שתיווצר שורה נוספת לאותו רכב עם טשן פתוח	Only one open session per car_plate	SELECT COUNT(*) FROM ParkingSession WHERE car_plate=? AND end_time IS NULL;
Open parking - invalid plate/missing fields	(N/A)	לא נוצרת חניה חדשה בדאטאבייס	No new row created	SELECT COUNT(*) FROM ParkingSession WHERE car_plate=?;
Verify parking appears in dashboard	ParkingSession	קיימת שורה עם הנתונים וה-end_time עדיין NULL	row with end_time=NULL exists	SELECT * FROM ParkingSession WHERE car_plate=? AND slot=? AND end_time IS NULL;
Close active parking	ParkingSession	end_time עודכן לזמן הסגירה, הרשומה לא מופיעה ברשימת הסשנים הפתוחים	end_time is NOT NULL	SELECT end_time FROM ParkingSession WHERE car_plate=? ORDER BY id DESC LIMIT 1;
Parking in history	ParkingSession	חניה שהסתיימה – end_time לא ריק, מופיעה בהיסטוריה	end_time is NOT NULL	SELECT * FROM ParkingSession WHERE car_plate=? AND end_time IS NOT NULL;
Double close not allowed	ParkingSession	אין שינוי (end_time נשאר כקודם)	end_time unchanged	בדוק זמן עדכון לפני ואחרי
Add new user (driver)	User	יוצר נוסף לטבלה	row with username=Y	SELECT * FROM User WHERE username=?;
Add duplicate user	User	אסור שתיווצר שורה כפולה	only one row with username=Y	SELECT COUNT(*) FROM User WHERE username=?;
Delete user with no parking	User, ParkingSession	היזור נמחק, לא קיימות שורות עבורו	No row for user	SELECT * FROM User WHERE username=?;
Delete user with active parking	User, ParkingSession	היזור לא נמחק, עדיין קיים	user row remains	SELECT * FROM User WHERE username=?;
Fee calculation/attachment image	ParkingSession	השדה fee מחושב נכון, השדה image_path שמור	correct values in DB	SELECT fee, image_path FROM ParkingSession WHERE id=?;