# **Software Requirements Specification for a Smart Parking System (SPS)**

**1.0 Introduction**

Uganda today has an increase in the number of motor vehicles which has led to an increased demand for safe and affordable parking space.

This SPS eases access of information about safe and affordable parking space depending your location in Kampala.

**1.1 Purpose**

The SPS will enable vehicle owners to access information regarding finding parking space for a particular area like the location, how much to pay for how long.

**1.2 Scope**

This project is being developed as a web application enabling vehicle owners find safe and affordable parking space information in detail like location and pricing.

A vehicle owner registers their details like the number plate, name, telephone number and email address.

A vehicle owner inputs his current location.

The service providers within that location get notifications asking whether they have empty slots.

On agreeing, the vehicle owner then gets search results for the parking space with location and pricing.

On clicking on any, the service provider is notified with the vehicle owner’s details.

Vehicle owners are to pay for the parking space via mobile money, cash and debit cards.

It also provides a provision for service providers in this case parking space owners register themselves with name, mode of payment and location of the parking space they are providing.

The system will make use of google maps for the location.

**2.0 Inputs of the SPS**

**Vehicle owner**

* Number Plate
* Name of the Driver
* NIN (National Identification Number)
* Current location
* Phone number
* [Debit card number](https://www.thebalance.com/how-to-use-a-debit-card-315271), which is a 16-digit number if you have a Visa, MasterCard, or Discover. You can always enter a debit card number even if the merchant asks for a credit card.
* Security code to reduce the chances of fraud (usually on the back of your card) and any address information required such as your zip code which must match the address on file with your bank.

**Service provider**

* Location of parking space
* Name of service provider
* Contact
* Mobile number registered for mobile money.

**2.1 Outputs of the SPS**

**For the Vehicle Owner**

* Location of parking space
* Name of service provider
* Mode of payment

**Service provider**

* Person requesting for space
* Number plate
* Name of driver
* Telephone number

**3.0 Constraints of SPS**

* User should have basic knowledge of a computer.
* The system is in English
* Time
* Budget
* Existing competitors in the business