System test cases

| **Use Case** | **Function Being Tested** | **Initial System State** | **Input** | **Expected Output** | **Test execution documentation** |
| --- | --- | --- | --- | --- | --- |
| Bus Component Testing | Server Provides Bus information | Application is just started | Busid (Long) | Server accept Bus ID in number form and should not accept any character |  |
| Bus Component Testing | Server refuse to Provides Bus information | Server is on testing condition | Busid (rather than Long ex:Char) | BusId should not be accepted, if it is not data type Long, “also show some error message” |  |
| Bus Component Testing | Mismatch ID (Id which is not available on server) | Server is on testing condition | BusID | Server should show some empty error message |  |
| Bus Component Testing | Requesting Bus Number Plate | Application is connected with Server and on testing condition | BusId(Long) | Server should accept Bus ID and show the relevant bus number plate in String |  |
| Bus Component Testing | Server Refuse to provide Bus Number Plate information | Server is on testing condition | Busid (rather than Long ex:Char) | BusId should not accept, if it is not data type Long, “also show some error message” |  |
| Bus Component Testing | Requesting Bus Color | Application is connected with Server and just provided number plate information | BusId(Long) | Server should accept Bus ID and provide the relevant bus color in string |  |
| Bus Component Testing | Server Refuse to provide Bus Color | Server is on testing condition | Busid (rather than Long ex:Char) | BusId should not accept, if it is not data type Long, “also show some error message” |  |
| Bus Component Testing | Requesting Bus Picture | Application is connected with Server and just provided Bus color | BusId(Long) | Server should accept Bus ID and provide the relevant bus picture |  |
| Bus Component Testing | Server refuse to provide Bus Picture | Server is on testing condition | Busid (rather than Long ex:Char) | BusId should not accept, if it is not data type Long, “also show some error message” |  |
| Bus Component Testing | Requesting bus position | Application is connected with Server and just provided Bus Picture | BusId(Long) | Server should accept Bus ID and provide the current bus GPS position in latitude and longitude form, |  |
| Bus Component Testing | Checking radius of the bus | Server is on testing condition | BusId(Long) | diameter of the position should be 20 meter. |  |
| Bus Component Testing | Checking refresh rate of the GPS position | Server is on testing condition | BusId(Long) | Refresh rate of the GPS should be ””Sec |  |
| Bus Component Testing | Checking if GPS refresh rate fails to refresh the location in mentioned time span | Server is on testing condition | BusId(Long) | Request device to refresh its GPS location |  |
| Bus Component Testing | Checking if GPS is showing position on wrong route | Server is on testing condition | BusId(Long) | Application should generate some error message that bus is not on it’s route |  |
| Bus Component Testing | Requesting Bus Delay | Application is connected with Server and just provided Bus Position | BusId(Long) | Server should accept Bus ID and provide bus delay time in integer |  |
| Bus Component Testing | Server refuse to show bus delay time | Server is on testing condition | Busid (rather than Long ex:Char) | BusId should not accept, if it is not data type Long, “also show some error message” |  |
| Line Component Testing | Requesting Line information | Application is connected with Server | LineID (Long) | Server should accept LineID and provide Line information |  |
| Line Component Testing | Server refuse to show line information | Server is on testing condition | LineID (rather than Long ex: Char) | LineID should be not accepted, if it is not data type Long, “also show some error message” |  |
| Line Component Testing | Requesting name of the line | Application is connected with Server | LineID (Long) | Server should accept LineID and provide Line name in String form |  |
| Line Component Testing | Mismatch ID (Id which is not available on server) | Server is on testing condition | Line ID | Server should show some empty error message |  |
| Line Component Testing | Server refuse to provide Line name | Server is on testing condition | LineID (rather than Long ex: Char) | Server should not accept LineID and do not provide Line name as the lineId is not in correct form and show some error also |  |
| Line Component Testing | Requesting route information | Server is on testing condition | LineID (Long) | Server should accept LineID and provide relevant route information |  |
| Line Component Testing | Server refuse to provide route information | Server is on testing condition | Any value except LineId | Server should not accept LineID and do not provide route information as the lineId is not in correct form and show some error also |  |
| Line Component Testing | Requesting relevant bus in particular line | Server is on testing condition | LineID (Long) | Server should accept LineID and provide relevant busses on the provided line |  |
| Route Component Testing | Requesting Route number information | Application is connected with Server | RouteId | Server should accept RouteID and provide route information |  |
| Route Component Testing | Server refuse to provide Route Information | Application is connected with Server | Any value except routeId | Server should not accept RouteID and do not provide route information |  |
| Route Component Testing | Requesting complete route coordinates | Server is on testing condition | routeID | Server should accept route id and provide complete list of gps coordinates to make route on map |  |
| Stops Component Testing | Requesting Stops information | Application is connected with Server | StopID(BigInt) | Server should provide stops information |  |
| Stops Component Testing | Invalid stop id | Server is on testing condition | Any value except StopID(BigInt) | Server should not provide any information until the input is not in proper format |  |
| Stops Component Testing | Checking Stop name | Server is on testing condition | StopID(BigInt) | Server should provide stop name against provided stop id |  |
| Stops Component Testing | Invalid stop name | Server is on testing condition | Any value except StopID(BigInt) | Server should not provide any information until the input is not in proper format |  |
| Stops Component Testing | Checking Stop lines | Server is on testing condition | StopID(BigInt) | Server should provide line string relevant to the specified stop |  |
| Stops Component Testing | Invalid Stop Line | Server is on testing condition | Any value except StopID(BigInt) | Server should not provide any information but is should response with error message |  |
| Stops Component Testing | Checking Stop Location | Server is on testing condition | StopID(BigInt) | Server Should provide the gps coordinates of the stop |  |
| Stops Component Testing | Invalid Stop Location | Server is on testing condition | Any value except StopID(BigInt) | Server should not provide any location but it should show some error |  |
| Stops Component Testing | Checking bus Schedules of the specific Stop | Server is on testing condition | Line Name (String) | Server should provide the bus schedule in the form of line of the bus arriving time on the particular stop |  |
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