**Test Suite:**

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| **Test**  **Cases** | **Test Condition** | | **Steps / Setup** | **Expected Result** | **Final Result** |
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| 1.1 | To check whether train has started after pressing start button or not. | | Whether dispatcher is sending the request to the trains and tracks or not | The train, track will start. | **Passed** |
| 1.2 | To check whether the train is sending the heartbeat to the dispatcher | | Train will send heartbeat to the dispatcher for every 3 seconds. If dispatcher will not receive after 3 attempts (9 seconds) then entire system will be stopped automatically. | Trains will send the heartbeat to the dispatcher, if not entire system will be stopped automatically | **Failed** |
| 1.3 | To check whether the speed of the train is within the maximum speed of the section | | Train have max. speed of the next coming section, so that train will reduce its speed before entering into that section | Train will maintain its speed within the max. Speed of the section. | **Passed** |
| 1.4 | To check whether the train is updating speed and section number in which it is entering dynamically | | Train will send information to track every 5 sec about speed and section number in which it is entering. So that track could block all those routes | The train reaches destination with limited speed and in the location blocked by the track. | **Passed** |

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| 2.1 | To check whether the section is disabled after train has reached its destination. | After train crossed a particular section then that section should be enabled so that information is updated in the database, so that the section can be used by other trains. | Sections are updating their status after train passes over it | **Passed** |
| 2.2 | To check whether The switch is working properly or not | Train will send a request to change the switch direction towards left, | The train will occupy that particular section side in which switch is turned. | **Failed** |
| 2.3 | To check whether track is sending about section information, route to train | Track will send information like routes to the train, so that the train will follow that route. | The train gets information about from the track so that train is moving based on that information | **Passed** |
| 3.1 | To check whether the dispatcher is working properly or not | This can be analyzed based on maps which includes stations and positions of trains. | If everything is going well all those information is displayed in dispatcher. | **Passed** |
| 3.2 | To check whether emergency stop button is working properly or not. | By clicking on stop button and know whether the system has stopped. | The entire system will stop immediately | **Passed** |
| 3.3 | To check whether train system and track system is sending information to dispatcher. | Train will send heart beat to dispatcher for every 3 sec. otherwise stop the entire system. | Information regarding speed, position and direction will be displayed in map of dispatcher. | **Passed** |