# Clinic Manager GUI Testing Document

**Project**: Clinic Manager Application

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**Class** **Name**: ClinicManagerController

**Method** **Signature**: N/A - GUI Functional Testing

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| **Test Case #** | **Requirement** | **Test Description and Input Data** | **Expected Result/Output** |
| 1 | Doctor Booking | User tries to enter numbers in the first name field in the Doctor tab.  Test Data:   * First Name: 123 * Last Name: Smith * DOB: 03/22/1980 * Appointment Date: 12/15/2023 * Time Slot: 9:00 AM * NPI: 123456 | First name can only contain letters. |
| 2 | Doctor Booking | User tries to book an appointment with a past date.  Test Data:   * First Name: John * Last Name: Smith * DOB: 01/01/1980 * Appointment Date: 01/01/2020 * Time Slot: 9:30 AM * NPI: 123456 | Appointment cannot be in the past. |
| 3 | Doctor Booking | User tries to book a doctor's appointment more than six months in the future.  Test Data:   * First Name: Sarah * Last Name: Connor * DOB: 05/15/1975 * Appointment Date: 12/20/2024 * Time Slot: 10:00 AM * NPI: 789101 | Appointment cannot be six months in the future. |
| 4 | Doctor Booking | User attempts to book without selecting a time slot.  Test Data:   * First Name: Emily * Last Name: Jones * DOB: 07/14/1990 * Appointment Date: 12/15/2023 * Time Slot: (not selected) * NPI: 112233 | Time slot must be selected for booking. |
| 5 | Technician Booking | User tries to enter non-numeric values for the rate of a technician.  Test Data:   * First Name: Alex * Last Name: Brown * DOB: 09/22/1985 * Appointment Date: 11/25/2023 * Time Slot: 2:30 PM * Imaging Type: XRAY * Rate: ABC | Rate should be a numeric value. |
| 6 | Technician Booking | User attempts to book an appointment with an invalid imaging type.  Test Data:   * First Name: Zoe Last Name: Green * DOB: 10/10/1990 * Appointment Date: 12/01/2023 * Time Slot: 3:00 PM * Imaging Type: MRI | Invalid imaging type selected. |
| 7 | Appointment Rescheduling | User tries to reschedule to a slot where an appointment already exists.  Test Data:   * Old Appointment Date: 12/05/2023 * New Appointment Date: 12/05/2023 * Old Time Slot: 9:00 AM * New Time Slot: 9:00 AM * First Name: Jane * Last Name: Doe * DOB: 03/03/1992 | Selected time slot is not available. |
| 8 | Appointment Rescheduling | User tries to reschedule an appointment to a date in the past.  Test Data:   * Old Appointment Date: 12/05/2023 * New Appointment Date: 01/01/2023 * Old Time Slot: 9:00 AM * New Time Slot: 10:00 AM * First Name: David * Last Name: Wright * DOB: 04/12/1988 | Appointment cannot be rescheduled to a past date. |
| 9 | Appointment Cancellation | User tries to cancel an appointment that doesn’t exist.   * Test Data: * First Name: Peter * Last Name: Parker * DOB: 08/15/2000 * Appointment Date: 12/15/2023 * Time Slot: 11:30 AM | Appointment does not exist. |
| 10 | Output Validation | User tries to load provider data when file is missing.  Action: Load Providers  Expected Behavior: Providers file not found. | Display error message indicating providers file is missing. |
| 11 | Clear Fields | User fills in all fields in the Technician Booking tab, then clears them.  Action: Clear  Expected Result: All fields are cleared. | All input fields are reset to blank. |
| 12 | View All Appointments | User views all scheduled appointments ordered by date/time/provider.  Action: View All Appointments  Expected Result: Display appointments list ordered by date, time, and provider. | Display ordered list of all scheduled appointments. |
| 13 | Technician Booking | User tries to book without selecting an imaging type.  Test Data:   * First Name: Kevin * Last Name: Lee * DOB: 05/21/1983 * Appointment Date: 12/20/2023 * Time Slot: 2:00 PM * Imaging Type: (not selected) | Imaging type must be selected. |
| 14 | Doctor Booking | User tries to book an appointment for a doctor who doesn’t exist.  Test Data:   * First Name: Anna * Last Name: Smith * DOB: 12/12/1985 * Appointment Date: 12/20/2023 * Time Slot: 4:00 PM * NPI: 999999 | Error: Provider does not exist with the provided NPI. |
| 15 | Technician Rotation | User attempts to book when no technicians are available in rotation for the selected date and time.  Test Data:   * First Name: Mark * Last Name: Brown * DOB: 01/15/1990 * Appointment Date: 12/20/2023 * Time Slot: 3:30 PM * Imaging Type: CATSCAN | No available technician found for the selected time slot. |
| 16 | Cancel Appointment | User tries to cancel with missing fields (e.g., last name not entered).  Test Data:   * First Name: Alice * Last Name: (blank) * DOB: 11/23/1988 * Appointment Date: 12/12/2023 * Time Slot: 2:30 PM | All fields must be completed for cancellation. |
| 17 | Reschedule Appointment | User reschedules to a slot on a different day with an available time.  Test Data:   * Old Appointment Date: 12/05/2023 * New Appointment Date: 12/10/2023 * Old Time Slot: 10:30 AM * New Time Slot: 11:30 AM First Name: Michael Last Name: Jordan DOB: 10/10/1970 | Appointment successfully rescheduled. |
| 18 | Patient Data Validation | User tries to enter a future date as the date of birth.  Test Data:   * First Name: Jessica * Last Name: Parker * DOB: 12/25/2025 * Appointment Date: 12/15/2023 * Time Slot: 9:00 AM * NPI: 112233 | Error: Patient DOB cannot be in the future. |
| 19 | Appointment Summary | User views summary of all appointments sorted by patient. Action: View Sorted by Patient Expected Result: Display appointments list ordered by patient. | Display ordered list of all appointments by patient name. |
| 20 | Clear Output | User generates multiple outputs in the appointment and provider data areas, then clears them. Action: Clear Output Expected Result: Both output areas are cleared of previous messages. | All previous output in text areas is cleared. |