🦷 DENTRA MVP - COMPLETE TESTING WORKFLOW

📋 TESTING OVERVIEW

This document provides a **complete, sequential testing workflow** that demonstrates the Dentra AI Voice Agent system is fully operational and ready for production.

Total Duration: 30-45 minutes
Test Phases: 5 phases with 52 verification points
Story: A day in the life of a dental clinic using Dentra

🎯 TESTING OBJECTIVES

By completing this workflow, you will verify:

1. ✅ **Backend API is operational** - All endpoints respond correctly
2. ✅ **Dashboard is fully functional** - All pages load and display data
3. ✅ **Navigation is seamless** - All links and routes work correctly
4. ✅ **Data flows properly** - Database → API → Frontend
5. ✅ **System is production-ready** - No errors, proper error handling

📊 TESTING SCORECARD

```
PHASE 1: System Health Check        [ ] /12 points
PHASE 2: Dashboard Core Functions   [ ] /15 points
PHASE 3: Data Management Pages       [ ] /12 points
PHASE 4: API & Backend Verification  [ ] /8 points
PHASE 5: Integration & Edge Cases    [ ] /5 points

TOTAL SCORE:                        [ ] /52 points

PASSING GRADE: 45/52 (87%)
EXCELLENCE: 50/52 (96%)
```

🚀 PHASE 1: SYSTEM HEALTH CHECK (12 points)

Objective: Verify that all core services are running and accessible

Test 1.1: Backend Health Check (2 points)

What this tests: Backend server is running and responding

Steps:

1. Open a new browser tab
2. Navigate to: `https://dentra-backend-zlxaiu.abacusai.app/health`
3. Observe the JSON response

Expected Result:

```
{
  "status": "ok",
  "timestamp": "2026-01-11T...",
  "service": "DENTRA Backend",
  "version": "1.0.0"
}
```

Verification Checklist:

- [ ] Page loads (no timeout errors)
- [ ] Returns valid JSON (not HTML error page)
- [ ] Status field shows "ok"
- [ ] Service name is "DENTRA Backend"
- [ ] Timestamp is recent (within last few minutes)

If all 5 checks pass: Award 2 points ✅
If 3-4 pass: Award 1 point ⚠️
If fewer than 3: Award 0 points ❌

Score: [ ] / 2

Test 1.2: Dashboard Homepage Load (2 points)

What this tests: Frontend dashboard loads and renders correctly

Steps:

1. Navigate to: `https://dentra-backend-zlxaiu.abacusai.app/dashboard/`
2. Wait for page to fully load (3-5 seconds)
3. Observe the complete page

Expected Result:

You should see:
- **Header:** Dentra logo and navigation bar (Dashboard, Appointments, Calls, Escalations, Clinics)
- **Title:** "Dashboard" with subtitle "Monitor your dental clinic operations in real-time"
- **Clinic Selector:** Dropdown showing "All Clinics"
- **6 Stat Cards:** Total Calls, Appointments, Escalations, Estimated Revenue, Success Rate, Clinics
- **System Health Section:** Green status indicator
- **Recent Appointments Table:** Showing 10 appointments
- **Escalation Queue:** Shows "All clear!"

Verification Checklist:

- [ ] Page loads without errors (no "Application Error" message)
- [ ] Dentra logo visible in top-left
- [ ] Navigation bar displays all 5 menu items
- [ ] All 6 stat cards are visible
- [ ] Recent Appointments table shows data
- [ ] No console errors (Press F12 → Console tab → should be clean)

If all 6 checks pass: Award 2 points ✅
If 4-5 pass: Award 1 point ⚠️
If fewer than 4: Award 0 points ❌

Score: [ ] / 2

Test 1.3: API Documentation Access (2 points)

What this tests: Swagger API documentation is accessible and properly configured

Steps:

1. Navigate to: `https://dentra-backend-zlxaiu.abacusai.app/api-docs`
2. Wait for Swagger UI to load
3. Explore the API documentation

Expected Result:

Swagger UI loads with:
- **Title:** "Dentra - AI Voice Agent for Dental Clinics"
- **Custom styling** (not default Swagger blue theme)
- **No "Swagger" branding** visible
- **API Endpoints organized by category:**
- Health
- Clinics
- Patients
- Webhook
- Calls
- Dashboard

Verification Checklist:

- [ ] Swagger UI loads successfully
- [ ] Custom styling applied (not default theme)
- [ ] No "Swagger" text visible in branding
- [ ] Can expand endpoint categories
- [ ] At least 6 endpoint categories visible

If all 5 checks pass: Award 2 points ✅
If 3-4 pass: Award 1 point ⚠️
If fewer than 3: Award 0 points ❌

Score: [ ] / 2

Test 1.4: Browser Console Clean (2 points)

What this tests: No JavaScript errors in production

Steps:

1. On dashboard homepage, press **F12** to open DevTools
2. Click **Console** tab
3. Look for any errors (red text)
4. Check **Network** tab for failed requests (red entries)

Expected Result:

- **Console:** No red error messages (warnings in yellow are OK)
- **Network:** All requests show 200 or 304 status codes (green)
- **No 404 errors** for missing resources
- **No CORS errors**

Verification Checklist:

- [ ] No red errors in Console tab
- [ ] All API requests successful in Network tab
- [ ] No 404 errors for CSS/JS files
- [ ] No CORS policy errors

If all 4 checks pass: Award 2 points ✅
If 2-3 pass: Award 1 point ⚠️
If fewer than 2: Award 0 points ❌

Score: [ ] / 2

Test 1.5: Database Connectivity (2 points)

What this tests: Backend can query database successfully

Steps:

1. In browser DevTools **Network** tab, look for request to `/api/dashboard/stats`
2. Click on the request
3. Click **Preview** or **Response** tab
4. Verify JSON response

Expected Result:

```
{
  "success": true,
  "data": {
    "calls": {
      "total": 0,
      "completed": 0,
      "failed": 0,
      "escalated": 0,
      "successRate": 0
    },
    "appointments": {
      "total": 50,
      "confirmed": 0,
      "cancelled": 0,
      "confirmationRate": 0
    },
    "revenue": {
      "estimated": 0,
      "currency": "USD"
    }
  }
}
```

Verification Checklist:

- [ ] API request completed successfully (200 status)
- [ ] Response is valid JSON
- [ ] `success: true` in response
- [ ] `appointments.total` shows 50 (seeded data)
- [ ] Data structure matches expected format

If all 5 checks pass: Award 2 points ✅
If 3-4 pass: Award 1 point ⚠️
If fewer than 3: Award 0 points ❌

Score: [ ] / 2

Test 1.6: Clinic Data Load (2 points)

What this tests: Clinic information loads from database

Steps:

1. On dashboard, click the **Clinic Selector** dropdown (top-right)
2. Observe the list of clinics

Expected Result:

Dropdown shows:
- **All Clinics** (default)
- **SmileCare Dental**
- **Gentle Touch Dentistry**
- **Bright Teeth Family Dentistry**

- **Riverside Dental Care**
- **Downtown Dental Associates**

Total: 6 options (1 "All" + 5 clinics)

Verification Checklist:

- [ ] Dropdown opens when clicked
- [ ] Shows "All Clinics" option
- [ ] Shows exactly 5 clinic names
- [ ] All clinic names are readable
- [ ] Can select different clinics

If all 5 checks pass: Award 2 points ✅
If 3-4 pass: Award 1 point ⚠️
If fewer than 3: Award 0 points ❌

Score: [ ] / 2

📊 PHASE 1 TOTAL SCORE: [ ] / 12

Milestone Check:
- **10-12 points:** System healthy, proceed to Phase 2 ✅
- **7-9 points:** Some issues, proceed with caution ⚠️
- **Below 7:** Critical issues, stop and debug ❌

🎨 PHASE 2: DASHBOARD CORE FUNCTIONS (15 points)

Objective: Verify dashboard displays data correctly and all UI components work

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Test 2.1: Stat Cards Display & Values (3 points)

What this tests: Dashboard statistics load and display correctly

Steps:

1. From dashboard homepage, observe all 6 stat cards
2. Verify each card shows correct information

Expected Result:

Card 1: Total Calls
- Value: `0`
- Description: "0 completed, 0 failed"
- Icon: Phone
- Color: Default (white/light)

Card 2: Appointments

- Value: `50`

- Description: "0 confirmed, 0 cancelled"

- Icon: Calendar

- Color: Default

Card 3: Escalations

- Value: `0`

- Description: "Calls requiring attention"

- Icon: Alert Triangle

- Color: Default (or green if 0)

Card 4: Estimated Revenue

- Value: `$0`

- Description: "USD"

- Icon: Dollar Sign

- Color: Green background

Card 5: Success Rate

- Value: `0.0%`

- Description: "Call completion rate"

- Icon: Checkmark

- Color: Default

Card 6: Clinics

- Value: `5`

- Description: "View all clinics"

- Icon: Activity/Building

- Color: Default

Verification Checklist:

- [ ] All 6 cards visible and properly styled
- [ ] "Appointments" card shows value of 50
- [ ] "Clinics" card shows value of 5
- [ ] All icons render correctly (no broken images)
- [ ] "Estimated Revenue" card has green background
- [ ] All text is readable (no overflow or truncation)
- [ ] Numbers are formatted correctly (no NaN or undefined)

If all 7 checks pass: Award 3 points ✅
If 5-6 pass: Award 2 points ⚠️
If 3-4 pass: Award 1 point ⚠️
If fewer than 3: Award 0 points ❌

Score: [ ] / 3

Test 2.2: Stat Card Click Navigation (3 points)

What this tests: Stat cards navigate to correct pages when clicked

Steps:

1. **Hover** over the "Total Calls" card
2. Observe hover effect (card should scale slightly)
3. **Click** the "Total Calls" card
4. Verify navigation to `/dashboard/calls/`
5. Use browser **Back** button to return
6. **Click** the "Appointments" card → should go to `/dashboard/appointments/`
7. Go back, **click** "Escalations" card → should go to `/dashboard/escalations/`
8. Go back, **click** "Clinics" card → should go to `/dashboard/clinics/`

Expected Result:

• Hovering over clickable cards shows visual feedback (scale up, cursor changes to pointer)
• Each card navigates to its corresponding page
• URLs are correct (no double `/dashboard/dashboard/` paths)
• Browser back button works correctly
• Non-clickable cards (Revenue, Success Rate) don't have hover effect

Verification Checklist:

• [ ] "Total Calls" card has hover effect (scales up)
• [ ] Clicking "Total Calls" navigates to calls page
• [ ] Clicking "Appointments" navigates to appointments page
• [ ] Clicking "Escalations" navigates to escalations page
• [ ] Clicking "Clinics" navigates to clinics page
• [ ] URLs are correct (e.g., `/dashboard/calls/` not `/dashboard/dashboard/calls/`)
• [ ] Browser back button works correctly
• [ ] Non-clickable cards (Revenue, Success Rate) don't show pointer cursor

If all 8 checks pass: Award 3 points ✅
If 6-7 pass: Award 2 points ⚠️
If 4-5 pass: Award 1 point ⚠️
If fewer than 4: Award 0 points ❌

Score: [ ] / 3

Test 2.3: Navigation Bar Functionality (2 points)

What this tests: Top navigation bar works across all pages

Steps:

1. From dashboard homepage, click **"Appointments"** in top navigation
2. Verify URL changes to `/dashboard/appointments/`
3. Observe that "Appointments" is now highlighted/active in nav
4. Click **"Calls"** → URL should change to `/dashboard/calls/`
5. Click **"Escalations"** → URL should change to `/dashboard/escalations/`
6. Click **"Clinics"** → URL should change to `/dashboard/clinics/`
7. Click **"Dashboard"** to return home

Expected Result:

- Each nav item navigates to correct page
- Active page is highlighted in navigation bar (different background color or underline)
- Navigation works from any page (not just homepage)
- Dentra logo is visible on all pages

Verification Checklist:

- [ ] All 5 navigation items are clickable
- [ ] Each item navigates to correct page
- [ ] Active page is visually highlighted
- [ ] Navigation bar consistent across all pages
- [ ] URLs are correct

If all 5 checks pass: Award 2 points ✅
If 3-4 pass: Award 1 point ⚠️
If fewer than 3: Award 0 points ❌

Score: [ ] / 2

Test 2.4: System Health Section (2 points)

What this tests: System health monitoring displays correctly

Steps:

1. On dashboard homepage, scroll down to "System Health" section
2. Observe status indicator and metrics

Expected Result:

Section Header:
- Title: "System Health"
- Icon: Shield or Activity icon

Status Indicator:
- Green checkmark icon
- Text: "Healthy" (in green)
- Subtext: "System is operating normally"
- Timestamp: Current date/time (e.g., "Last updated 4:43:26 PM")

Metrics (24-hour window):
- **CALLS (24H):** 0
- **ERROR RATE:** 0.0%
- **ESCALATION RATE:** 0.0%
- **AVG DURATION:** 0s or 0 mins

Alert Section:
- Shows "No issues detected" or similar positive message

Verification Checklist:

- [ ] System Health section visible

- [ ] Status shows "Healthy" with green indicator
- [ ] Timestamp is present and recent
- [ ] All 4 metrics display correctly
- [ ] No error messages shown
- [ ] Section is properly styled (not broken layout)

If all 6 checks pass: Award 2 points ✅
If 4-5 pass: Award 1 point ⚠️
If fewer than 4: Award 0 points ❌

Score: [ ] / 2

Test 2.5: Recent Appointments Table (3 points)

What this tests: Appointments table displays data correctly on dashboard

Steps:

1. On dashboard homepage, scroll to "Recent Appointments" section
2. Verify table structure and content
3. Look for "View All" link in top-right of section

Expected Result:

Table Header:
- Title: "Recent Appointments"
- Subtext: "Showing 10 appointments"
- "View All" link with arrow icon (→)

Table Columns:
- Date & Time
- Patient
- Service
- Clinic
- Status

Table Data:
- Shows **10 appointments** (limited view)
- Mix of scheduled appointments and available slots
- Patient names visible (e.g., "Karen Walker", "Nancy Rodriguez")
- "N/A" shown for available slots (no patient assigned)
- Services like "Crown Placement", "Root Canal", "Dental Filling"
- Dates formatted as "Jan 12, 2026 14:00"
- Status badges:
- Green badge for "scheduled"
- Blue badge for "available"

Verification Checklist:

- [ ] Table displays exactly 10 appointments (not all 50)
- [ ] All 5 column headers visible
- [ ] Patient names display correctly (or "N/A" for available slots)

- [ ] Service names are readable

- [ ] Clinic names display correctly

- [ ] Dates are formatted properly

- [ ] Status badges are color-coded

- [ ] "View All" link is visible and styled correctly

- [ ] Table has proper borders/styling

- [ ] No data overlap or truncation

If all 10 checks pass: Award 3 points ✅
If 7-9 pass: Award 2 points ⚠️
If 4-6 pass: Award 1 point ⚠️
If fewer than 4: Award 0 points ❌

Score: [ ] / 3

Test 2.6: Escalation Queue Display (2 points)

What this tests: Escalation monitoring section displays correctly

Steps:

1. On dashboard homepage, scroll to "Escalation Queue" section (bottom)
2. Observe empty state display

Expected Result:

Section Header:
- Title: "Escalation Queue"
- Icon: Alert Triangle
- Subtext: "0 calls requiring attention"

Empty State:
- Green checkmark icon
- Message: "All clear!"
- Subtext: "No escalations at this time"
- Clean, centered design

(Note: Since no calls have been made yet, this should show empty state)

Verification Checklist:

- [ ] Escalation Queue section visible

- [ ] Shows "0 calls requiring attention"

- [ ] Green checkmark icon displayed

- [ ] "All clear!" message shown

- [ ] Empty state is well-designed (not just blank)

If all 5 checks pass: Award 2 points ✅
If 3-4 pass: Award 1 point ⚠️
If fewer than 3: Award 0 points ❌

Score: [ ] / 2

📊 PHASE 2 TOTAL SCORE: [ ] / 15

Milestone Check:
- **13-15 points:** Dashboard fully functional ✅
- **10-12 points:** Minor issues, proceed ⚠️
- **Below 10:** Dashboard issues, review failures ❌

📄 PHASE 3: DATA MANAGEMENT PAGES (12 points)

Objective: Verify all detail pages load and display data correctly

Test 3.1: Appointments Page - Full View (3 points)

What this tests: Complete appointments list displays correctly

Steps:

1. Navigate to: `https://dentra-backend-zlxaiu.abacusai.app/dashboard/appointments/`

OR

1. From dashboard, click "View All" link in Recent Appointments section

Expected Result:

Page Header:
- Title: "Appointments (20)"
- Note: Shows total count in parentheses
- Number may vary based on seeded data
- Calendar icon next to title

Table Structure:
- Columns: Patient | Clinic | Service | Date | Status
- Shows ALL appointments (not limited to 10)
- Full scrollable list

Data Content:
- Mix of scheduled appointments (with patient names)
- Available slots (showing "N/A" for patient)
- Various services (Crown Placement, Root Canal, Cleaning, Filling, Extraction)
- Multiple clinics represented
- Dates spanning several days in January 2026
- Status badges (green = scheduled, blue = available, yellow = cancelled)

Verification Checklist:

- [ ] Page loads without errors
- [ ] Title shows correct total count (should be ~20 or more)

- [ ] Table displays more than 10 appointments (full list)

- [ ] All columns visible and properly labeled

- [ ] Patient names display correctly

- [ ] Clinic names are accurate

- [ ] Services are readable

- [ ] Dates formatted correctly

- [ ] Status badges color-coded

- [ ] Table is scrollable (if many appointments)

- [ ] No duplicate entries visible

- [ ] Layout is clean (no overlapping content)

If all 12 checks pass: Award 3 points ✅
If 9-11 pass: Award 2 points ⚠️
If 6-8 pass: Award 1 point ⚠️
If fewer than 6: Award 0 points ❌

Score: [ ] / 3

Test 3.2: Calls Page - Empty State (2 points)

What this tests: Empty state displays gracefully when no data exists

Steps:

1. Navigate to: `https://dentra-backend-zlxaiu.abacusai.app/dashboard/calls/`

OR

1. From dashboard, click "Calls" in navigation bar

OR

1. Click the "Total Calls" stat card

Expected Result:

Empty State Display:
- Large phone icon (centered, gray color)
- Heading: "No Calls Yet"
- Subtext: "Call logs will appear here once calls are made"
- Clean, professional design
- No broken table or loading spinner

Why it's empty: System is ready but hasn't received any incoming calls yet from Twilio

Verification Checklist:

- [ ] Page loads successfully (no 404 error)

- [ ] "Calls" is highlighted in navigation bar

- [ ] Empty state message is clear and user-friendly

- [ ] Phone icon displays correctly

- [ ] No error messages shown

- [ ] Layout is centered and clean

If all 6 checks pass: Award 2 points ✅
If 4-5 pass: Award 1 point ⚠️
If fewer than 4: Award 0 points ❌

Score: [ ] / 2

Test 3.3: Escalations Page - Empty State (2 points)

What this tests: Escalations page handles empty data correctly

Steps:

1. Navigate to: `https://dentra-backend-zlxaiu.abacusai.app/dashboard/escalations/`

OR

1. From dashboard, click "Escalations" in navigation bar

Expected Result:

Loading State (briefly):
- May show loading spinner with "Loading escalations..." text
- Should complete within 1-2 seconds

Final Empty State:
- Green checkmark icon (centered)
- Heading: "All clear!"
- Subtext: "No escalations at this time"
- Positive, reassuring message
- Clean design

Why it's empty: No calls have been escalated yet (which is good!)

Verification Checklist:

- [ ] Page loads successfully
- [ ] "Escalations" highlighted in navigation
- [ ] Empty state shows positive message (not error)
- [ ] Green checkmark icon visible
- [ ] Message is encouraging ("All clear!")
- [ ] No console errors

If all 6 checks pass: Award 2 points ✅
If 4-5 pass: Award 1 point ⚠️
If fewer than 4: Award 0 points ❌

Score: [ ] / 2

Test 3.4: Clinics Page - Grid Display (3 points)

What this tests: Clinics page displays all clinic information correctly

Steps:

1. Navigate to: `https://dentra-backend-zlxaiu.abacusai.app/dashboard/clinics/`

OR

1. Click "Clinics" in navigation bar

OR

1. Click the "Clinics" stat card on dashboard

Expected Result:

Page Header:
- Title: "Dental Clinics (5)"
- Building icon next to title

Clinic Cards Layout:
- Grid of 5 cards (3 columns on desktop, responsive on smaller screens)
- Even spacing between cards
- Cards have white background with shadow

Each Card Contains:

1. **SmileCare Dental**
   - Green building icon
   - Address: 123 Main St, New York, NY 10001
   - Phone: +15551234567

2. **Gentle Touch Dentistry**
   - Green building icon
   - Address: 654 Pine St, Phoenix, AZ 85001
   - Phone: +15555678901

3. **Bright Teeth Family Dentistry**
   - Green building icon
   - Address: 456 Oak Ave, Los Angeles, CA 90001
   - Phone: +15552345678

4. **Riverside Dental Care**
   - Green building icon
   - Address: 321 River Rd, Houston, TX 77001
   - Phone: +15554567890

5. **Downtown Dental Associates**
   - Green building icon
   - Address: 789 Elm St, Chicago, IL 60601
   - Phone: +15553456789

Verification Checklist:

- [ ] Page loads successfully
- [ ] Title shows "Dental Clinics (5)"
- [ ] All 5 clinic cards visible
- [ ] Cards arranged in grid layout
- [ ] Each card has green building icon

- [ ] All clinic names correct

- [ ] All addresses complete and readable

- [ ] All phone numbers formatted correctly

- [ ] Cards have hover effect (shadow increases)

- [ ] No data truncation or overflow

- [ ] Layout is responsive (resize window to test)

If all 11 checks pass: Award 3 points ✅
If 8-10 pass: Award 2 points ⚠️
If 5-7 pass: Award 1 point ⚠️
If fewer than 5: Award 0 points ❌

Score: [ ] / 3

Test 3.5: "View All" Links Navigation (2 points)

What this tests: Quick navigation links work from dashboard

Steps:

1. Navigate to dashboard homepage

2. Scroll to "Recent Appointments" section

3. Find "View All" link (top-right of section header)

4. **Hover** over the link

5. Observe styling changes (should show hover effect)

6. **Click** "View All"

7. Verify navigation to `/dashboard/appointments/`

8. Use back button to return to dashboard

9. Try the same with Escalation Queue "View All" link (if visible)

Expected Result:

- "View All" link has arrow icon (→)

- Link changes color on hover

- Clicking navigates to full page

- Browser back button returns to dashboard

- Link text is clear (not truncated)

Verification Checklist:

- [ ] "View All" link visible in Recent Appointments

- [ ] Arrow icon (→) appears next to text

- [ ] Hover effect works (color change)

- [ ] Clicking navigates to appointments page

- [ ] URL is correct (/dashboard/appointments/ not /dashboard/dashboard/appointments/)

- [ ] Browser back button works

If all 6 checks pass: Award 2 points ✅
If 4-5 pass: Award 1 point ⚠️
If fewer than 4: Award 0 points ❌

Score: [ ] / 2

📊 PHASE 3 TOTAL SCORE: [ ] / 12

Milestone Check:
- **10-12 points:** All pages working correctly ✅
- **7-9 points:** Some page issues ⚠️
- **Below 7:** Significant problems ❌

🔌 PHASE 4: API & BACKEND VERIFICATION (8 points)

Objective: Verify backend APIs return correct data and handle requests properly

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Test 4.1: Dashboard Stats API (2 points)

What this tests: Main stats endpoint returns correct aggregated data

Steps:

1. Open browser DevTools (F12)
2. Go to **Network** tab
3. Navigate to dashboard homepage (or refresh if already there)
4. Find request to `/api/dashboard/stats`
5. Click on the request
6. Click **Response** tab to see raw JSON

Expected Result:

```
{
  "success": true,
  "data": {
    "calls": {
      "total": 0,
      "completed": 0,
      "failed": 0,
      "escalated": 0,
      "successRate": 0
    },
    "appointments": {
      "total": 50,
      "confirmed": 0,
      "cancelled": 0,
      "confirmationRate": 0
    },
    "revenue": {
      "estimated": 0,
      "currency": "USD"
    }
  }
}
```

Verification Checklist:

- [ ] Request completes successfully (status 200)
- [ ] Response time is reasonable (< 2 seconds)
- [ ] Returns valid JSON structure
- [ ] `success` field is `true`
- [ ] `data.appointments.total` shows 50 or close to it
- [ ] All required fields present (calls, appointments, revenue)
- [ ] No error messages in response

If all 7 checks pass: Award 2 points ✅
If 5-6 pass: Award 1 point ⚠️
If fewer than 5: Award 0 points ❌

Score: [ ] / 2

Test 4.2: Appointments API (2 points)

What this tests: Appointments endpoint returns full list

Steps:

1. In DevTools Network tab, navigate to appointments page
2. Find request to `/appointments` or `/api/dashboard/appointments`
3. View response

Alternative Method (Direct API Test):

1. Open browser Console (F12 → Console tab)
2. Run this command:

```
fetch('https://dentra-backend-zlxaiu.abacusai.app/api/dashboard/appointments')
  .then(r => r.json())
  .then(d => console.log('Appointments:', d.data.length, 'total'))
```

Expected Result:

- Returns array of appointments
- Should show ~20 or more appointments
- Each appointment has:
- id
- clinic_id
- patient_id (or null for available slots)
- service_id (or null for available slots)
- scheduled_time
- status ("scheduled", "available", "confirmed", "cancelled", "completed")
- created_at, updated_at
- Nested objects: clinic{}, patient{}, service{}

Verification Checklist:

- [ ] Request returns 200 status
- [ ] Returns array of appointments
- [ ] At least 15+ appointments in response
- [ ] Each appointment has required fields
- [ ] Nested relations populated (clinic, patient, service)
- [ ] No null/undefined errors

If all 6 checks pass: Award 2 points ✅
If 4-5 pass: Award 1 point ⚠️
If fewer than 4: Award 0 points ❌

Score: [ ] / 2

Test 4.3: Clinics API (2 points)

What this tests: Clinics endpoint returns all clinic data

Steps:

1. Open browser Console (F12 → Console)
2. Run this command:

```
fetch('https://dentra-backend-zlxaiu.abacusai.app/clinics')
  .then(r => r.json())
  .then(d => console.log('Clinics:', d))
```

Expected Result:

```
[
  {
    "id": "...",
    "name": "SmileCare Dental",
    "address": "123 Main St, New York, NY 10001",
    "phone": "+15551234567",
    "created_at": "...",
    "updated_at": "..."
  },
  // ... 4 more clinics
]
```

Verification Checklist:

- [ ] Request returns 200 status
- [ ] Returns array of exactly 5 clinics
- [ ] Each clinic has name, address, phone
- [ ] All clinic data matches what's displayed in UI
- [ ] No missing or null fields

If all 5 checks pass: Award 2 points ✅
If 3-4 pass: Award 1 point ⚠️
If fewer than 3: Award 0 points ❌

Score: [ ] / 2

Test 4.4: Swagger API Testing (2 points)

What this tests: API documentation is functional and allows testing

Steps:

1. Navigate to: `https://dentra-backend-zlxaiu.abacusai.app/api-docs`
2. Expand the **"Clinics"** endpoint group
3. Click on **GET /clinics**
4. Click **"Try it out"** button
5. Click **"Execute"** button
6. Observe the response below

Expected Result:

Server Response Section:
- Code: 200
- Response body: JSON array of 5 clinics
- Response headers: content-type: application/json

Try Testing Other Endpoints:
- GET /health → Should return {"status": "ok"}
- GET /api/dashboard/stats → Should return stats object

Verification Checklist:

- [ ] "Try it out" button works
- [ ] "Execute" button triggers request
- [ ] Response appears below (not error)
- [ ] Response code is 200
- [ ] Response body is valid JSON
- [ ] Can test multiple endpoints

If all 6 checks pass: Award 2 points ✅
If 4-5 pass: Award 1 point ⚠️
If fewer than 4: Award 0 points ❌

Score: [ ] / 2

📊 PHASE 4 TOTAL SCORE: [ ] / 8

Milestone Check:
- **7-8 points:** APIs fully functional ✅
- **5-6 points:** Minor API issues ⚠️
- **Below 5:** Backend problems ❌

🧪 PHASE 5: INTEGRATION & EDGE CASES (5 points)

Objective: Verify system handles edge cases and integrates properly

---

Test 5.1: Clinic Filtering (1 point)

What this tests: Filtering data by clinic works correctly

Steps:

1. Navigate to dashboard homepage
2. Click **Clinic Selector** dropdown (top-right)
3. Select **"SmileCare Dental"**
4. Observe stat cards and tables update
5. Note the filtered results
6. Select **"All Clinics"** again
7. Verify data returns to full view

Expected Result:

- When filtering by specific clinic:
- Stats update to show only that clinic's data
- Recent Appointments table filters to show only that clinic

- Numbers decrease (fewer appointments shown)
- When returning to "All Clinics":
- Data returns to full view
- Total appointments back to 50

Verification Checklist:

- [ ] Clinic selector works on dashboard
- [ ] Selecting clinic filters the data
- [ ] Can return to "All Clinics" view
- [ ] No errors when filtering
- [ ] URL may update with clinic parameter (optional)

If all 5 checks pass: Award 1 point ✅
If 3-4 pass: Award 0.5 points ⚠️
If fewer than 3: Award 0 points ❌

Score: [ ] / 1

Test 5.2: Responsive Design (1 point)

What this tests: Dashboard adapts to different screen sizes

Steps:

1. On dashboard homepage, open DevTools (F12)
2. Click **"Toggle device toolbar"** icon (or press Ctrl+Shift+M)
3. Select different devices:
   - Desktop (1920x1080)
   - Tablet (iPad - 768x1024)
   - Mobile (iPhone - 375x667)
4. Observe layout changes

Expected Result:

Desktop (1920px):
- Stat cards in 3 columns
- Full navigation bar
- Tables show all columns

Tablet (768px):
- Stat cards reorganize to 2 columns
- Navigation still visible
- Tables remain readable

Mobile (375px):
- Stat cards stack in 1 column
- Navigation may collapse to hamburger menu (if implemented)
- Tables may scroll horizontally

Verification Checklist:

- [ ] Dashboard loads on different screen sizes

- [ ] Stat cards reorganize responsively

- [ ] No horizontal scrollbar on any size (except tables on mobile)

- [ ] All text remains readable

- [ ] No overlapping content

If all 5 checks pass: Award 1 point ✅
If 3-4 pass: Award 0.5 points ⚠️
If fewer than 3: Award 0 points ❌

Score: [ ] / 1

Test 5.3: Page Load Performance (1 point)

What this tests: Pages load quickly without performance issues

Steps:

1. In DevTools, go to **Network** tab

2. Check **"Disable cache"** option

3. Hard refresh dashboard (Ctrl+Shift+R)

4. Look at bottom of Network tab for load time

5. Check total transfer size

Expected Result:

- **Load time:** Under 3 seconds (ideally under 2s)

- **Transfer size:** Under 2 MB

- **Number of requests:** Under 30

- All resources load (no failed red requests)

Verification Checklist:

- [ ] Page loads in under 3 seconds

- [ ] No resources fail to load (all green/gray)

- [ ] No excessively large files (>500KB)

- [ ] No waterfall delays (requests don't block each other)

If all 4 checks pass: Award 1 point ✅
If 2-3 pass: Award 0.5 points ⚠️
If fewer than 2: Award 0 points ❌

Score: [ ] / 1

Test 5.4: Error Handling (1 point)

What this tests: System handles errors gracefully

Steps:

1. In DevTools, go to **Network** tab

2. Click **"No throttling"** dropdown → Select **"Offline"**

3. Try refreshing the dashboard page

4. Observe error handling

5. Switch back to **"No throttling"** (go online)

6. Reload page

7. Verify recovery

Expected Result:

When Offline:
- Shows error message (not blank page)
- Error is user-friendly (e.g., "Unable to load data. Please check your connection.")
- "Try Again" button appears
- Layout doesn't break

When Back Online:
- Page loads normally
- Data appears correctly
- No lingering errors

Verification Checklist:

- [ ] Offline state shows error message (not white screen)
- [ ] Error message is user-friendly
- [ ] Page structure remains intact
- [ ] Can recover when back online

If all 4 checks pass: Award 1 point ✅
If 2-3 pass: Award 0.5 points ⚠️
If fewer than 2: Award 0 points ❌

Score: [ ] / 1

Test 5.5: Browser Compatibility (1 point)

What this tests: Dashboard works across different browsers

Steps:

1. Test dashboard in **Google Chrome** (primary browser)

2. If available, test in **Firefox**

3. If available, test in **Safari** (Mac/iOS)

4. If available, test in **Edge**

Expected Result:

- Dashboard loads in all browsers
- Layout is consistent
- All features work (navigation, filtering, etc.)
- No browser-specific errors

Verification Checklist:

- [ ] Works in Chrome/Chromium

- [ ] Works in at least one other browser (Firefox/Safari/Edge)

- [ ] Layout consistent across browsers

- [ ] No browser-specific console errors

If all 4 checks pass: Award 1 point ✅
If 2-3 pass: Award 0.5 points ⚠️
If fewer than 2: Award 0 points ❌

Score: [ ] / 1

📊 PHASE 5 TOTAL SCORE: [ ] / 5

🏆 FINAL SCORING & CERTIFICATION

📊 COMPLETE SCORECARD

```
PHASE 1: System Health Check         [ ] / 12 points
PHASE 2: Dashboard Core Functions    [ ] / 15 points
PHASE 3: Data Management Pages        [ ] / 12 points
PHASE 4: API & Backend Verification  [ ] / 8 points
PHASE 5: Integration & Edge Cases    [ ] / 5 points


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TOTAL SCORE:                         [ ] / 52 points
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PERCENTAGE: _____%
```

🎯 GRADING SCALE

Score Range	Grade	Status	Recommendation
50-52 (96-100%)	A+	🌟 EXCELLENT	Production ready - deploy with confidence
47-49 (90-95%)	A	✅ VERY GOOD	Production ready - minor polish optional
45-46 (87-89%)	B+	✅ GOOD	Production ready - passing grade
40-44 (77-86%)	B	⚠️ ACCEPTABLE	Functional but review failures
35-39 (67-76%)	C	⚠️ NEEDS WORK	Multiple issues - address before production
Below 35 (<67%)	F	❌ FAIL	Critical issues - do not deploy

PASSING GRADE: 45/52 (87%)

✅ CERTIFICATION

If you scored 45 points or higher, the system is PRODUCTION READY!

Fill out this certification:

```
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              DENTRA MVP TESTING CERTIFICATE
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Tested By: _____

Date: _____

Total Score: _____ / 52  (_____%)

Grade: _____

Status: [ ] PASS    [ ] FAIL

Critical Issues Found: _____

Minor Issues Found: _____

Comments:
_____
_____
_____


CERTIFICATION:

[ ] I certify that I have completed all test phases
[ ] I certify the system is functioning as designed
[ ] I certify the dashboard is production-ready
[ ] I recommend deployment to production

Signature: _____  Date: _____


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```

🐛 ISSUE TRACKING

If you found any issues during testing, document them here:

Critical Issues (Blocks Production)

```
1. [ ] Issue: _____
      Phase: _____ [] Test: _____
      Description: _____

2. [ ] Issue: _____
      Phase: _____ [] Test: _____
      Description: _____
```

Minor Issues (Can Deploy with Workarounds)

```
1. [] [] Issue: _____
   Phase: _____ [] Test: _____
   Description: _____

2. [] [] Issue: _____
   Phase: _____ [] Test: _____
   Description: _____
```

Enhancement Requests (Post-MVP)

```
1. [] [] Request: _____
   Benefit: _____

2. [] [] Request: _____
   Benefit: _____
```

📸 SCREENSHOT CHECKLIST

For documentation/demo purposes, capture these screenshots:

- [ ] Dashboard homepage (full view)
- [ ] Appointments page showing 20+ entries
- [ ] Clinics page showing all 5 clinics
- [ ] API documentation (Swagger UI)
- [ ] System Health section (green status)
- [ ] Empty state: Calls page
- [ ] Empty state: Escalations page
- [ ] DevTools showing clean console (no errors)
- [ ] DevTools Network tab showing successful API calls
- [ ] Mobile view (responsive design)

🎬 NEXT STEPS AFTER TESTING

If You PASSED (45+ points):

1. ✅ **Document your score** and any minor issues
2. ✅ **Take screenshots** for records
3. ✅ **Deploy to production** (system is ready)
4. ✅ **Configure Twilio** for live call handling
5. ✅ **Monitor system** with real data
6. ✅ **Train staff** on dashboard usage

If You FAILED (<45 points):

1. ❌ **Document all failures** in detail
2. ❌ **Report critical issues** to development team

3. ❌ **Do NOT deploy** to production
4. ❌ **Retest after fixes** are implemented
5. ❌ **Schedule follow-up** testing session

📞 SUPPORT & QUESTIONS

If you encounter issues during testing:

1. **Check browser console** (F12) for error messages
2. **Check DevTools Network tab** for failed requests
3. **Try different browser** to rule out browser-specific issues
4. **Clear cache** and retry (Ctrl+Shift+Delete)
5. **Document the issue** with screenshots
6. **Report to development team** with details

📝 TESTING NOTES

Use this space for any additional observations:

⏱️ TIME TRACKING

```
Phase 1 Start Time: _____    End Time: _____    Duration: _____  min
Phase 2 Start Time: _____    End Time: _____    Duration: _____  min
Phase 3 Start Time: _____    End Time: _____    Duration: _____  min
Phase 4 Start Time: _____    End Time: _____    Duration: _____  min
Phase 5 Start Time: _____    End Time: _____    Duration: _____  min


TOTAL TESTING TIME: _____  minutes
```

Document Version: 1.0
Last Updated: January 11, 2026
System Version: Dentra MVP 1.0
Backend Version: 1.0.0
Dashboard Version: 1.0

🎉 CONGRATULATIONS!

You've completed the **Dentra MVP Complete Testing Workflow**!

This comprehensive test validates:
- ✅ Backend API functionality
- ✅ Frontend dashboard operations
- ✅ Database connectivity
- ✅ Navigation and routing
- ✅ Data display and accuracy
- ✅ Error handling
- ✅ Performance and responsiveness

Your testing helps ensure Dentra delivers reliable, professional service to dental clinics!

End of Testing Workflow