



Medical Test Calculator - Implementation Plan

Medinova Medical Services Ltd

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প্রকল্প সংক্ষিপ্তসার

Medinova Medical Services Ltd এর জন্য একটি **comprehensive Test Calculator** তৈরি করা যাবে যেখানে users multiple tests select করতে পারবে এবং total cost calculate হবে।



ডেটা পরিসংখ্যান

বিবরণ	সংখ্যা
🔬 মোট টেস্ট	243টি
📁 ক্যাটাগরি	34টি
💰 মূল্য সীমা	50 - 10,000 টাকা
📅 প্যাকেজ	7টি Health Checkup

মূল ফিচারসমূহ

1 টেস্ট সিলেকশন সিস্টেম

✓ Category-wise Organization

- HEMATOLOGY (রক্ত পরীক্ষা)
- BIOCHEMISTRY (জৈব রসায়ন)
- HORMONE (হরমোন)
- CARDIAC (হৃদরোগ)
- IMAGING (ইমেজিং)
- এবং আরও 29টি category






✓ Multi-select Functionality

- একসাথে multiple tests select
- Real-time price update
- Easy remove option

✓ Search & Filter

- Test name দিয়ে instant search
- Category-based filtering
- দ্রুত test খুঁজে পাওয়া

2 ক্যালকুলেটর ফিচার

ফিচার	বিবরণ
 Real-time Calculation	Test select করলেই total update
 Category Subtotal	Category wise price breakdown
 Grand Total	সব tests এর মোট দাম
 Package Suggestions	Smart package recommendations
 Discount System	Bulk test এর জন্য discount

3 ইউজার ইন্টারফেস

Main Components:

- **Test List View** - Searchable, filterable test list
- **Shopping Cart** - Selected tests with prices
- **Category Sidebar** - Quick navigation
- **Price Summary** - Fixed right panel

- **Print/Export** - PDF download option
-

🏠 টেকনিক্যাল আর্কিটেকচার

Option 1: Django App Integration ✅ (সুপারিশকৃত)

```
tangail-doctors-python/
├── tests/                    # নতুন Django app
│   ├── models.py           # Test, TestCategory models
│   ├── views.py            # Calculator views
│   ├── urls.py             # Routes
│   ├── admin.py            # Admin interface
│   ├── management/
│   │   ├── commands/
│   │   └── import_tests.py
│   ├── templates/tests/
│   │   ├── calculator.html
│   │   ├── test_list.html
│   │   └── quotation.html
│   └── static/tests/
│       ├── css/calculator.css
│       └── js/calculator.js
```

📦 Database Models

TestCategory Model:

- name (Category name)
- slug (URL-friendly name)
- order (Display order)
- icon (Category icon)

Test Model:

- test_id (Unique ID: 001-243)
- name (Test name in Bengali)
- category (ForeignKey)
- price (Decimal field)
- is_package (Package flag)
- is_active (Active status)

TestQuotation Model:

- quotation_id (Unique quotation ID)
 - patient_name (Optional)
 - tests (ManyToMany)
 - total_amount, discount, final_amount
 - created_at (Timestamp)
-

🧠 ইউজার ইন্টারফেস ডিজাইন

লেআউট স্ট্রাকচার

Medinova Test Calculator		
Category Sidebar	Test List 🔍 [Search Box]	Calculator Panel
• Blood	<input type="checkbox"/> CBC (300ট)	Selected: 5
• Urine	<input type="checkbox"/> RBS (150ট)	✓ CBC - 300ট
• Hormone	<input type="checkbox"/> TSH (500ট)	✓ RBS - 150ট
• Cardiac	...	✓ TSH - 500ট
• ...	[Load More]	...
		Total: 950ট
		[🖨️ Print]
		[📄 PDF]

🧠 ডিজাইন ফিচার

📌 Sticky Panel

Calculator সবসময় visible

📱 Responsive

Mobile-friendly layout

BD Bengali

সম্পূর্ণ বাংলা সাপোর্ট

JavaScript Functionality

Core Functions

Selection Functions:

- `selectTest(testId, testName, price)`
- `removeTest(testId)`
- `clearAll()`

Calculation Functions:

- `calculateSubtotal(category)`
- `calculateGrandTotal()`
- `applyDiscount(percentage)`

Package Detection:

- `checkPackageAvailable(selectedTests)`
- `suggestPackage()`

Search & Filter:

- `searchTests(query)`
- `filterByCategory(categoryId)`

Export Functions:

- `printQuotation()`
- `downloadPDF()`
- `shareWhatsApp()`

LocalStorage Integration

Selected tests কে localStorage এ save করা যাতে page refresh এ data না হারায়। Browser বন্ধ করলেও data থাকবে।

🔧 ইমপ্লিমেন্টেশন স্টেপস

📅 ৫-দিনের কর্মপরিকল্পনা

Phase 1: Django App Setup (Day 1) ⌚ 6-8 ঘন্টা

1. ✓ Create `testapp` app
2. ✓ Create models (TestCategory, Test)
3. ✓ Management command for JSON import
4. ✓ Setup admin interface
5. ✓ Run migrations and import 243 tests

Phase 2: Basic Calculator (Day 2) ⌚ 6-8 ঘন্টা

1. ✓ Create calculator view
2. ✓ Design HTML template
3. ✓ Category sidebar
4. ✓ Test listing with checkboxes
5. ✓ Calculator panel

Phase 3: Interactive Features (Day 3) ⌚ 8-10 ঘন্টা

1. ✓ JavaScript real-time calculation
2. ✓ Search functionality
3. ✓ Category filtering
4. ✓ LocalStorage persistence
5. ✓ Remove/clear functionality

Phase 4: Advanced Features (Day 4) ⌚ 8-10 ঘন্টা





1. ✓ Package detection & suggestions
2. ✓ Discount system
3. ✓ Print quotation
4. ✓ PDF export
5. ✓ WhatsApp share

Phase 5: UI Polish & Testing (Day 5) ⌚ 6-8 ঘন্টা





1. ✓ Responsive design testing
 2. ✓ Bengali optimization
 3. ✓ Loading animations
 4. ✓ Error handling
 5. ✓ Cross-browser testing
-

অতিরিক্ত ফিচার (Optional)





User Integration

 Authentication	User login integration
 Save Quotations	User account এ save
 History	Previous quotations view
 Favorites	Frequently used tests

Admin Features

 Price Update	Admin থেকে price change
 Add/Remove Tests	Dynamically manage tests
 Discount Rules	Configure discounts
 Analytics	Quotation statistics

Appointment Integration

-  **Book Appointment** - Selected tests সহ appointment
-  **Email Quotation** - Email এ quotation পাঠানো
-  **Payment Gateway** - Online payment integration
-  **Home Collection** - Sample collection service

Routes Structure

```
/tests/calculator/ - Main calculator page /tests/api/tests/ - Get all tests (JSON API) /tests/api/search/ - Search tests endpoint /tests/api/calculate/ - Calculate total endpoint /tests/quotation/<id>/ - View quotation /tests/quotation/<id>/pdf/ - Download PDF /tests/quotation/save/ - Save quotation
```

Required Packages

For PDF Generation:

- reportlab==3.6.13
- weasyprint==60.1

For Excel Export:

- openpyxl==3.1.2

Already Available:

- django==4.2.7
- Python 3.13

Color Scheme

Primary Blue
#0066CC

Health Green
#00A859

Emergency Red
#FF6B6B

Quick Start Commands

Create new app

```
$ python manage.py startapp tests
```

Add to INSTALLED_APPS in settings.py

```
$ nano config/settings.py
```

Create models and migrations

```
$ python manage.py makemigrations tests $ python manage.py migrate
```

Import test data from JSON

```
$ python manage.py import_tests
```

Create superuser (if needed)

```
$ python manage.py createsuperuser
```

Run development server

```
$ python manage.py runserver
```

Access calculator

```
$ http://127.0.0.1:8000/tests/calculator/
```











Success Criteria

চেকলিস্ট

- ✓ All 243 tests imported successfully
- ✓ 34 categories organized properly
- ✓ Real-time calculation working
- ✓ Search responsive (< 100ms)
- ✓ Mobile responsive design complete
- ✓ Print/PDF export functional
- ✓ Bengali text displayed correctly
- ✓ LocalStorage persistence working
- ✓ Package suggestions accurate
- ✓ Admin panel fully operational

Future Enhancements

Phase 2 Features (Future)

1.  **AI-powered Suggestions** - Symptoms থেকে test suggest
2.  **Lab Report Integration** - Upload ও view reports
3.  **Prescription Upload** - Automatic test extraction
4.  **Insurance Coverage** - Insurance covered tests
5.  **Comparison Tool** - Other labs এর সাথে তুলনা
6.  **Appointment Scheduling** - Test appointment book
7.  **Home Collection** - Sample collection service
8.  **Multi-language** - English, Bengali, others
9.  **Mobile App** - React Native/Flutter app
10.  **Payment Integration** - bKash, Nagad, card

Key Benefits

Users এর জন্য

- দ্রুত test খুঁজে পাওয়া
- সঠিক মূল্য জানা
- Multiple tests একসাথে
- Instant quotation
- Time saving


Medinova এর জন্য

- Professionalism বৃদ্ধি
- Customer convenience
- Digital presence
- Data analytics
- Revenue tracking

Ready to Start Implementation!

এই comprehensive plan follow করে step-by-step implementation শুরু করা যাবে।
আপনি যদি বলেন তাহলে আমি এখনই **Phase 1** দিয়ে শুরু করব!

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