



111 Tips For A Comprehensive Custom Healthcare Software Development

Leverage custom healthcare software to enhance productivity, scalability, accessibility, and portability...

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FOREWORD

In the present, the healthcare industry is booming in the US. The value of the worldwide healthcare market stood at a booming \$8.45 trillion in 2018, with an annual growth rate of 7% since 2014. In the US alone, the market size is anticipated to increase by \$808 billion by 2021 from a study conducted by the PolicyAdvice Statistics report.

The healthcare market covers all companies that provide clinical services, health-related support, and the development of drugs and medical equipment. Therefore, it is essential to feel the need for custom healthcare software development so direly.

Custom Healthcare Software Development is built for startups, established product companies, hospitals, labs, etc. Often, it is easy to get lost in the concept of what is what, where it fits into, and how it works.

In this new chapter of 111 Tips For A Comprehensive Custom Healthcare Software Development eBook, we have tried to uncover the critical topics around the development right from mapping to the approach.

FOR MEDICAL DEVICES

Custom healthcare software development ensures fast ROI for your startup, medical device, or product company; the medical devices will have the potential to communicate with devices such as:

1. Patient monitor
2. Defibrillators
3. EKG/ECG machines
4. Hematology Analyzer / Cell counter
5. Biochemistry Analyzer
6. Ultrasound imaging
7. Electrosurgical unit / Cautery machine & more



FOR PHARMACEUTICAL COMPANIES

Custom healthcare software development ensures pharmaceutical companies to get communicate with:

- 8. Physicians
- 9. Key Opinion leaders
- 10. Medical associations
- 11. Academic institutions
- 12. Scientific experts
- 13. Regulatory authorities (HTA/HIPAA)
- 14. Patient groups



FOR ADMINISTRATION

Custom healthcare software development ensures smooth administration in hospitals, practices, assisted living facilities, and home care through...

15. EHR/EMR

16. Healthcare CRM

17. Hospital asset tracking

18. Hospital inventory management

19. Incident management

20. Medical staff management

21. Medical training and education

22. Practice management

23. Revenue cycle management (RCM)

24. Digital workplaces for doctors and nurses



FOR CARE-RELATED

Custom Healthcare Software Development ensures care-related hospitals, practices, assisted living facilities, and home care with

25. Healthcare information system (HIS)

26. Patient tracking

27. Care coordination

28. Medical VR and AR solutions

29. Medication administration

30. Drug prescription assistance

31. Healthcare data analytics

32. Inpatient care

33. Outpatient care



FOR LABORATORIES

Custom healthcare software development ensures smooth working of medical imaging practices in laboratories with:

34. Provider portals

35. Medical image management (Processes used to create images of various parts for diagnostic and treatment purposes within digital health)

36. Practice management

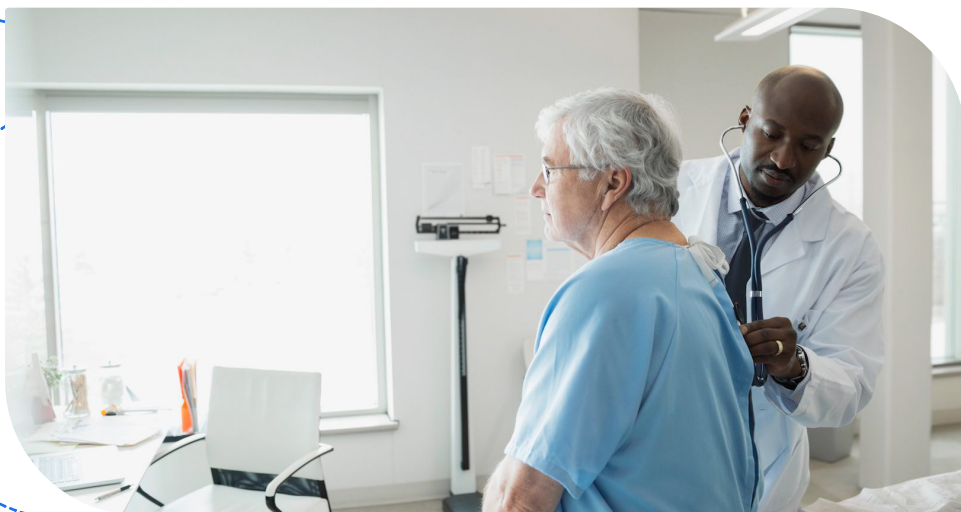
37. Lab management



FOR PATIENTS

Custom healthcare software development for patients has saved millions of lives by simplifying complex procedures. Here are some of its versions:

- 38. Patient engagement portal
- 39. Patient apps/portals
- 40. Digital Therapeutics (DTx)
- 41. Chronic disease management
- 42. Medication management
- 43. Allergies
- 44. Lifestyle Management
- 45. Remote patient monitoring
- 46. Telemedicine, virtual medicine
- 47. Healthcare AI chatbots



FOR MEDICAL DEVICE MANUFACTURERS

Custom healthcare software development for medical device manufacturers. Here are some of its versions:

48. ML-based medical image analysis

49. ML-based sensor data analysis

50. Cloud software for data storage

51. Cloud analysis

52. Cloud device management

53. Cloud integration

54. Biosensor cloud applications

55. AR for diagnosis and treatment

56. User software for medical devices



SOFTWARE FOR PHARMACEUTICAL COMPANIES

Custom healthcare software development ensures smooth administration in hospitals, practices, assisted living facilities, and home care through...

57. Clinical trials

58. Medication guidance

59. Direct-to-consumer (DTC) medication delivery

60. Physician portals



HOW HEALTHTECHWIZ TACKLES CUSTOM HEALTHCARE SOFTWARE DEVELOPMENT?

61. Preparation

- Firstly, we analyze functional, operational, legal, and other requirements to create a healthcare software specification.
- Define the custom healthcare software development project scope.
- Try accommodating a high-level delivery schedule.
- Then analyze the potential risks of software development, software use, etc.

62. Design

- UX designers fully draft user journeys to make the user experience intuitive and straightforward.
- They create attractive software interface elements (buttons, menus, icons, etc.)

When all the aspects are covered, the sleek design becomes attainable.

63. Development

- Make sure to take an iterative approach in the development.
- The project is split into 2-4 week iterations and launches a minimum viable product (MVP) or the first application version.
- Then proceed further with the same approach.

64. Testing

Conduct the following tests:

- Vulnerability assessment
- Penetration
- Performance
- Usability
- Functional testing

65. Launch

Custom healthcare software is released in the IT environment.

66. Support and maintenance

Oversee and maintain the performance of healthcare software, proactively detect and fix defects.

Just send us your RFP, and our experts will study your project idea, and business needs to offer you a tailored proposal.



FOR PATIENTS

67. Mental health apps - stress management apps

68. Medication intake tracking applications.

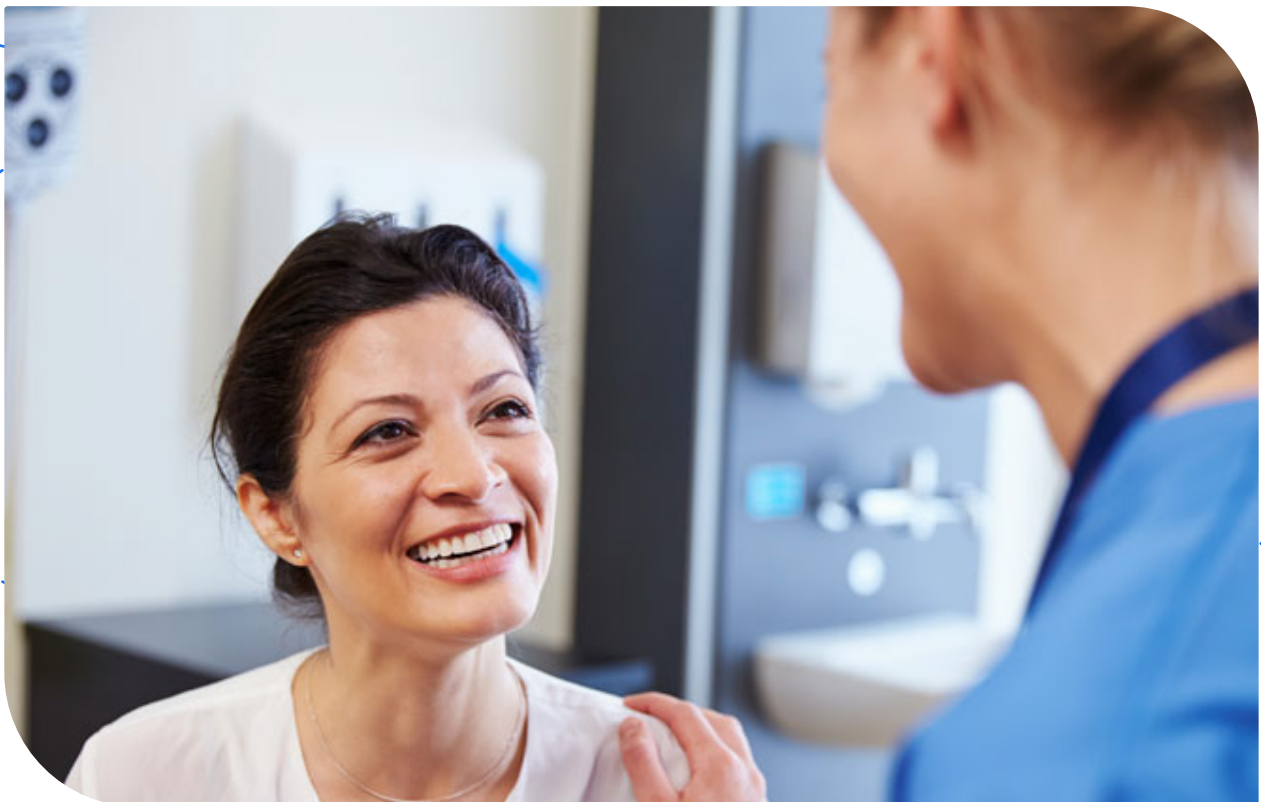
69. Fitness and wellness apps which include IoT-based solutions: For vital signs monitoring, For healthy habits monitoring, e.g., For menstrual cycle and pregnancy monitoring.

70. AI symptom checkers.

71. Appointment scheduling applications.

72. Patient portals cover access to personal health records and lab tests results (prescription refill requesting appointment scheduling).

73. Telemedicine applications (e.g., primary care telemedicine)



FOR MEDICAL PROFESSIONALS

74. Medical networking and education applications (e.g., VR-based simulation of patient examination).

75. Appointment management applications

76. Remote patient diagnosing applications.

FOR HEALTHCARE PROVIDERS

77. Timetable scheduling applications.

78. Billing applications.

79. Clinical assistance apps with EMR/EHR access.

80. Drug inventory tracking applications.

81. Digital workplaces for doctors and nurses

82. Inventory management apps.



HEALTHCARE MOBILE APPLICATION DEVELOPMENT CYCLE

- 83. Business analysis and project planning
- 84. UX and UI design
- 85. Front-end and back-end development
- 86. HL7 integration with healthcare systems
- 87. Mobile application testing
- 88. Implementation of a mobile healthcare application
- 89. App maintenance and evolution



TECHNOLOGIES USED FOR HEALTHCARE APP DEVELOPMENT SERVICES

90. iOS and Android

Develop native applications for Android or iOS devices with incredible user experience and usability.

91. Cross-platform development

Creating applications that run on devices regardless of their operating systems:

- Flutter offers high app performance and near-native UI.



FOR HOSPITAL ASSET TRACKING

92. On-going monitoring of asset location and availability to prevent loss and theft.

93. Asset utilization management for optimized asset investments.

94. Automated asset management.

FOR MEDICAL DEVICES

95. On-going monitoring and assessment of patients' vitals - e.g., pulse, blood pressure, glucose in real-time

96. Go through patients' health data to improve disease treatment and management

97. Alerting a nurse and a doctor in case of abnormal health parameters



FOR PATIENT & STAFF TRACKING

98. Patients' and employees' locations are tracked in real-time.

99. Patient flow assessment and prediction.

100. Daily tasks optimization and tasks optimization of Doctors' and nurses' schedules and daily tasks optimization.

101. Patient and staff safety improvement.

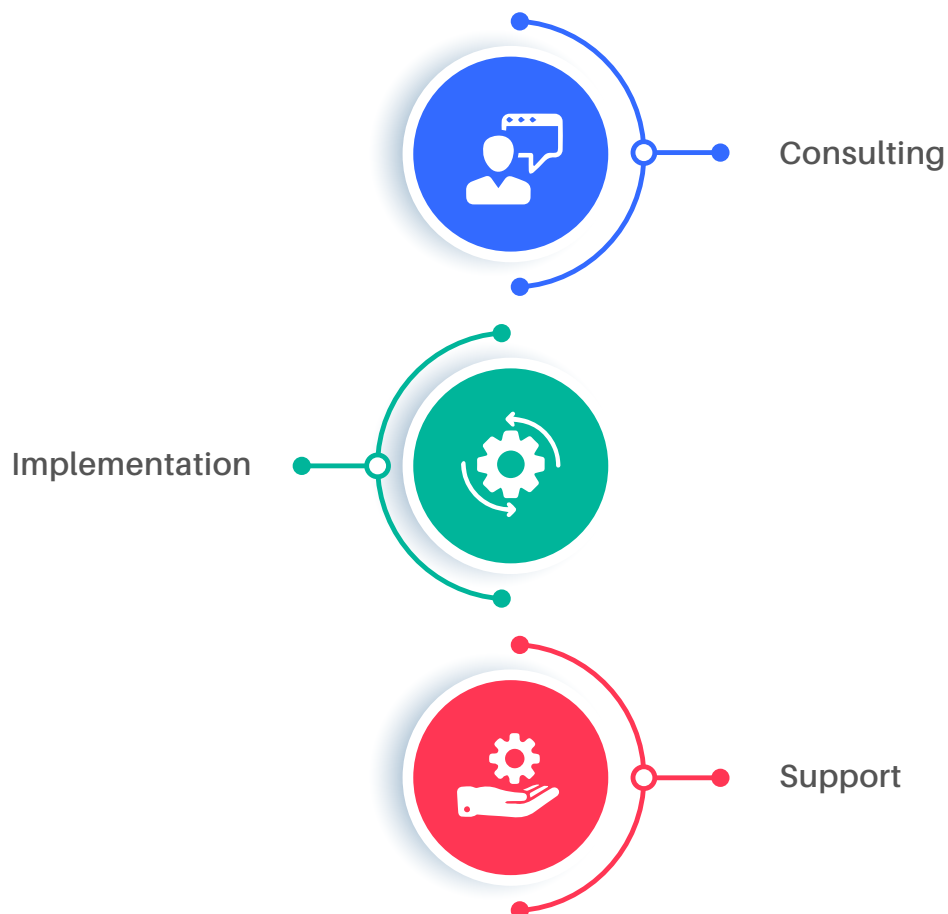
102. Bottleneck identification in internal hospital processes.



FOR SMART HOSPITALS

103. Smart rooms lighting using cloud-connected ward sensors (e.g., a light switch, door, and window contacts).

104. Climate control (e.g., to maintain a lower temperature in the empty wards), and more.



The capabilities for a futuristic IoMT solution are adequately outlined. Custom IoMT solutions are developed with a flexible and scalable architecture to expand the IoMT solution with new features when required—then testing and implementing IoMT solutions in agile iterations based on high-level or detailed requirements are performed. The first solution version with a lean set of high-priority features can be available within 3-6 months.

ADVANTAGES IOMT - TECHNOLOGY-ENABLED CARE

105. IoMT provides the best possibilities for chronic disease management and better care for outpatients.

106. Remote patient monitoring and outcomes analytics help healthcare professionals to make informed decisions in the shortest span.

107. Data helps asset cost analysis, asset investment, and its usage in hospitals.

108. Improves patient safety and satisfaction

109. Predictive maintenance helps lower the risk of medical equipment and its malfunctions.

110. Staff overload is slashed by half (e.g., patients' health parameters measurement, medical asset disinfection).

111. For enormous health systems: more excellent visibility from the headquarters into the state of remote facilities

112. Track movable assets and get immeasurable visibility into medical asset utilization.





About HealthTechWiz

HealthTechWiz is passionate about the Healthcare industry technology landscape and its developments. And that's why we named our company HealthTechWiz! We've gathered some of the best brains in the web development industry and cut them loose to create mind-blowing, forward-thinking custom healthcare solutions. And we want your project to be next! As Healthcare software providers, we're really good at: - Custom Healthcare solutions, Healthcare Software Solutions, Healthcare software development, Mobile application development, Mobile apps, IoT, and IoMT.

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