



PDF-Expert: A Powerful PDF Generator For Android

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Introduction

More and more people are installing applications related to health and medical care on their smart phones. In order to build an interface between information from the application and the real world outside the screen, a simple and easy to use Android PDF generator can be an important tool.

Since Android API 19 supports Adobe PDF format, I was able to create PDF documents without third party library support. However, the API 19 only provides basic PDF operation, which is not user-friendly. In this project, I combined basic canvas functionality into a tool called PDF Expert, which provides an easy way for Android developers to generate reports **from** their applications, especially for medical applications. This library acts as an interface to bridge the gap between Android applications and the outer world, which will help the healthcare consumer and doctor communicate through a formal report generated by their smartphone.

This library will free developers from manual canvas drawing and location scaling on the PDF document and allow them to simply append text on the document like a typewriter and append whatever you want to the page. PDF Expert will handle all these complex and monotonous pixel position calculations.



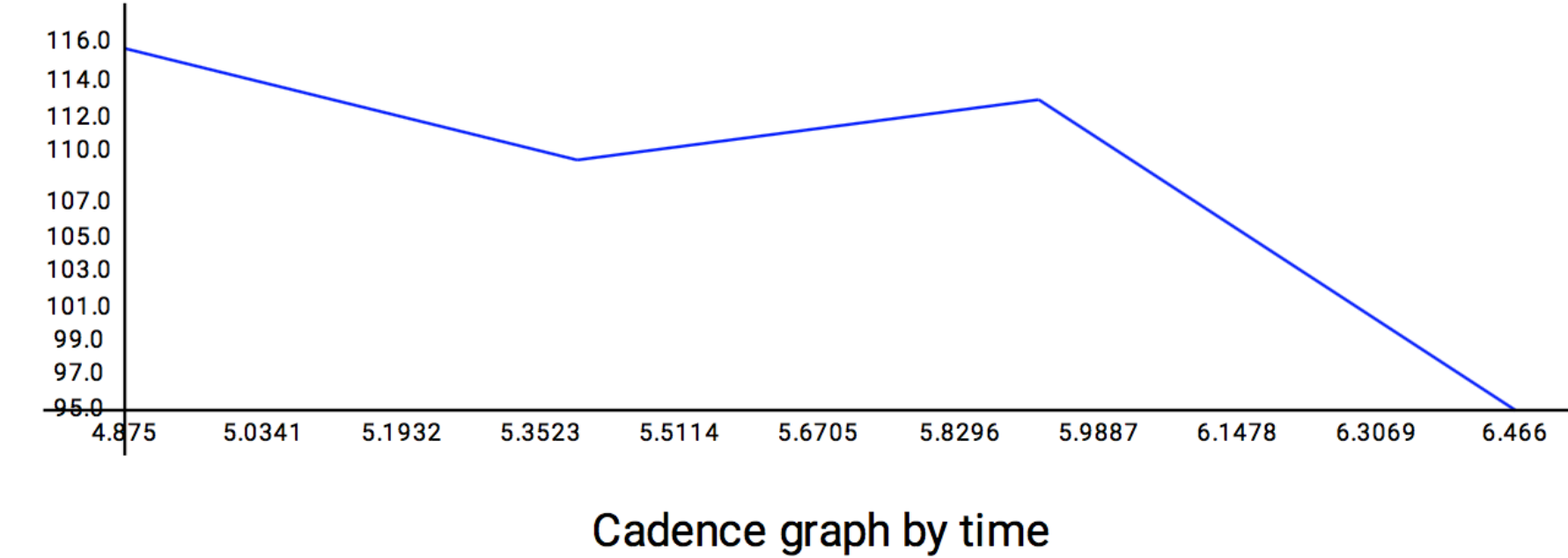
Report Testing

Patient Name: Bob

Patient Age: 20

Patient Gender: Male

Patient Height: 180.0 cm



Test Result:

Steps	7.0
Speed (m/s)	0.5973715
Step Length (m)	0.85714287
Cadence (steps/min)	120.13729
Max ML	5.1161327
Left Avg	1.2834641
Right Avg	-0.9509199
Max AP	8.460318
AP Avg	0.16917726
Avg Tilt (Degree)	7.5608234
Avg Rotation (Degree)	3.993152
Avg Obliquity (Degree)	68.269745

Conclusion

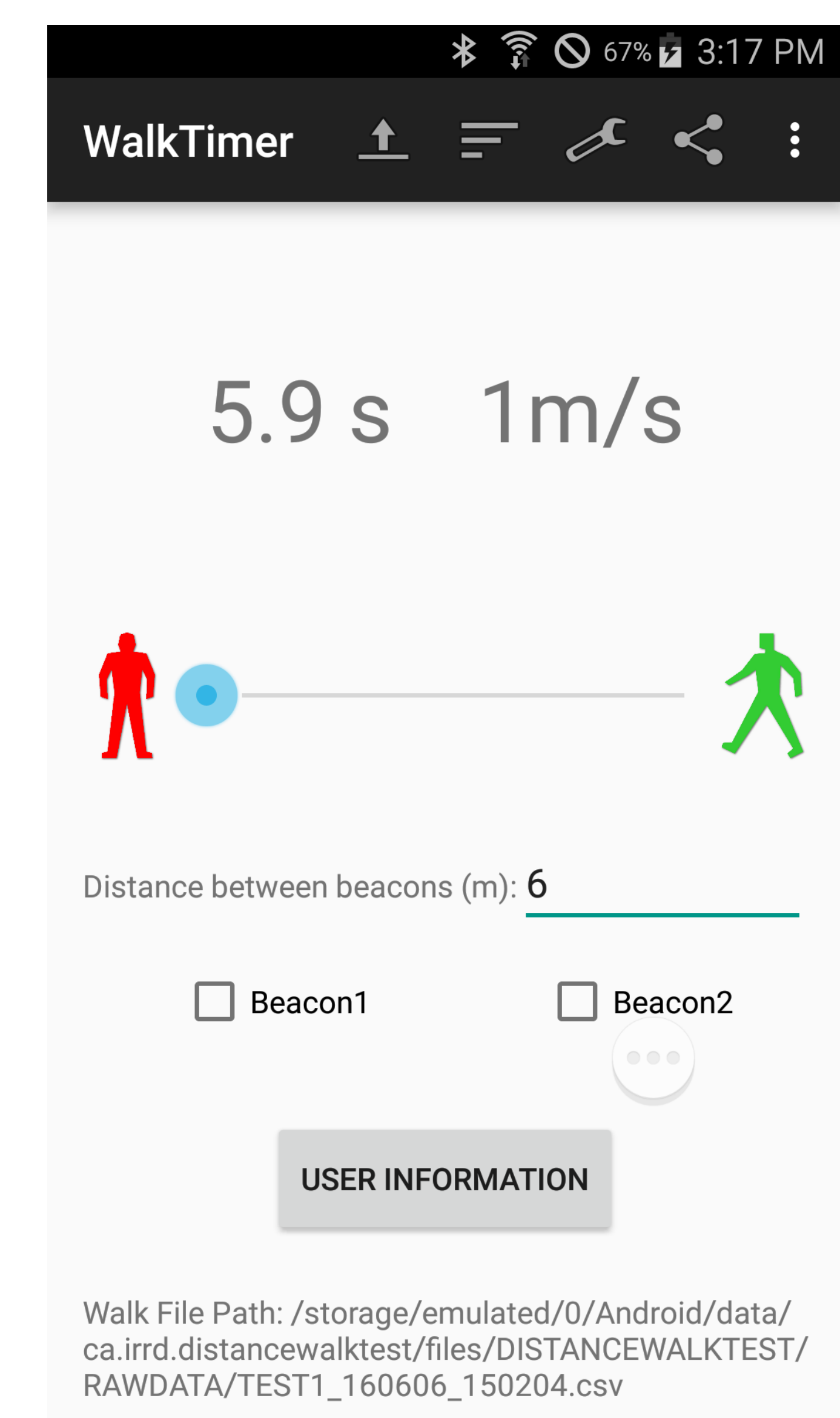
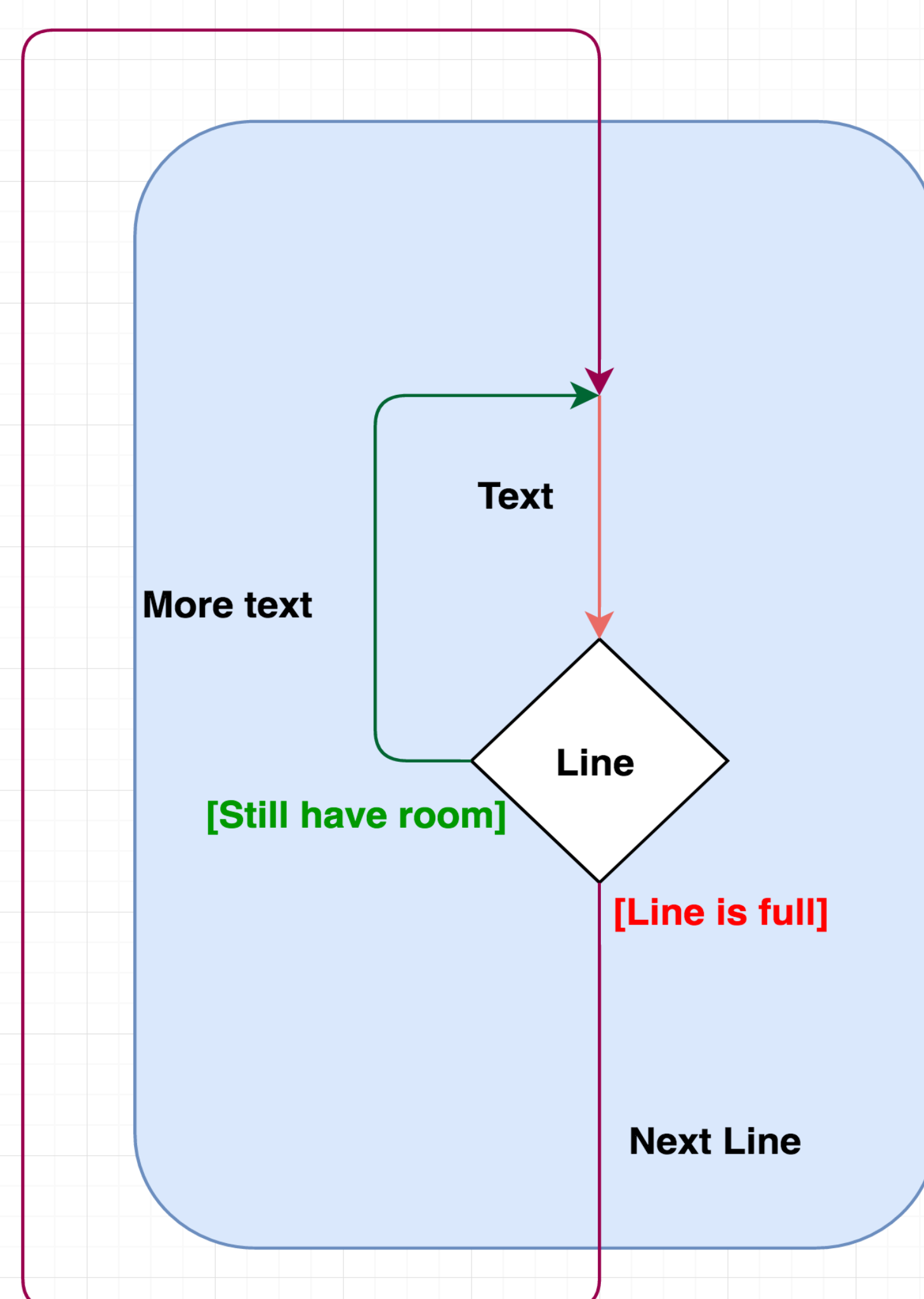
Through the research on Android and PDF, as well as drawing on Android canvas dynamically using code, Pdf Expert is finally available for boosting development by integrating PDF reporting into Android applications. The whole project is about auto scaling and dynamically appending objects on the pdf document.

Acknowledgements

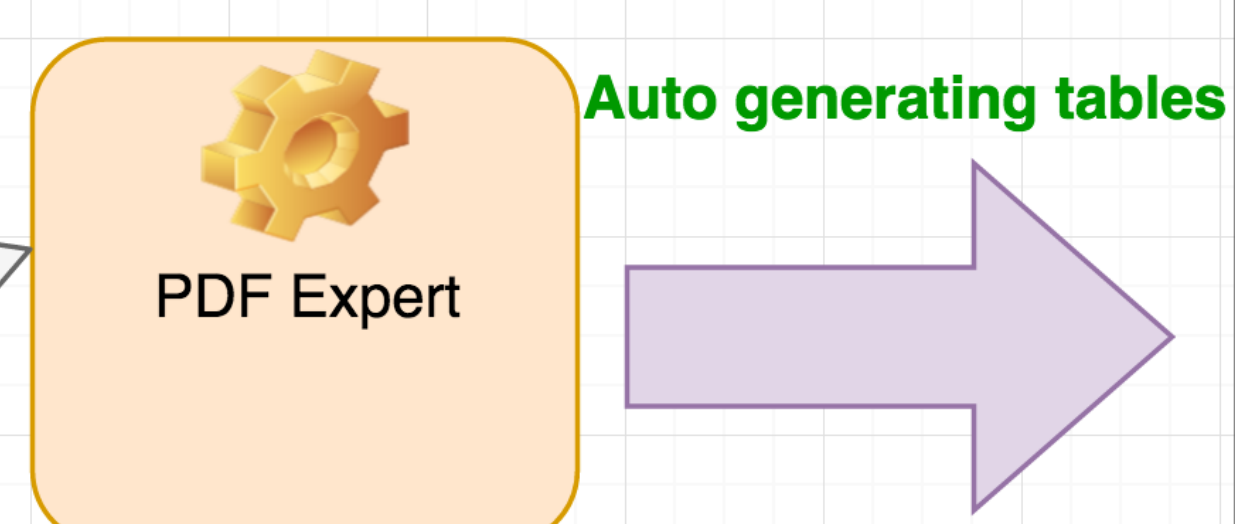
I would like to thank Edward Lemaire for his guidance, perspective, and efforts to contribute to my introduction into health and medical care software research. Thank you also to the UROP program and the University of Ottawa for the opportunity to explore these interests in a innovative and supported environment.

Methodology

Since Android API Level 19, the Android system supports standard PDF documents, which allows developers to generate pdf file directly without help from an external java library. However, only basic operations are allowed, such as drawing canvas on the document. Under this circumstances, the Pdf Expert library simplified the operations for appending text, drawing images and rendering tables which make it easier for developer to generate report with less effort.



Give me some data ;)



Value 1	Value 2	Value 3
Value 4	Value 5	Value 6
Value 7	Value 8	Value 9

References

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2. Srivastava, A. (march 5th, 2012). A Simple 2D Plot Class for Android. Retrieved from <http://www.ankitsrivastava.net/2012/03/a-simple-2d-plot-class-for-android/>

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