



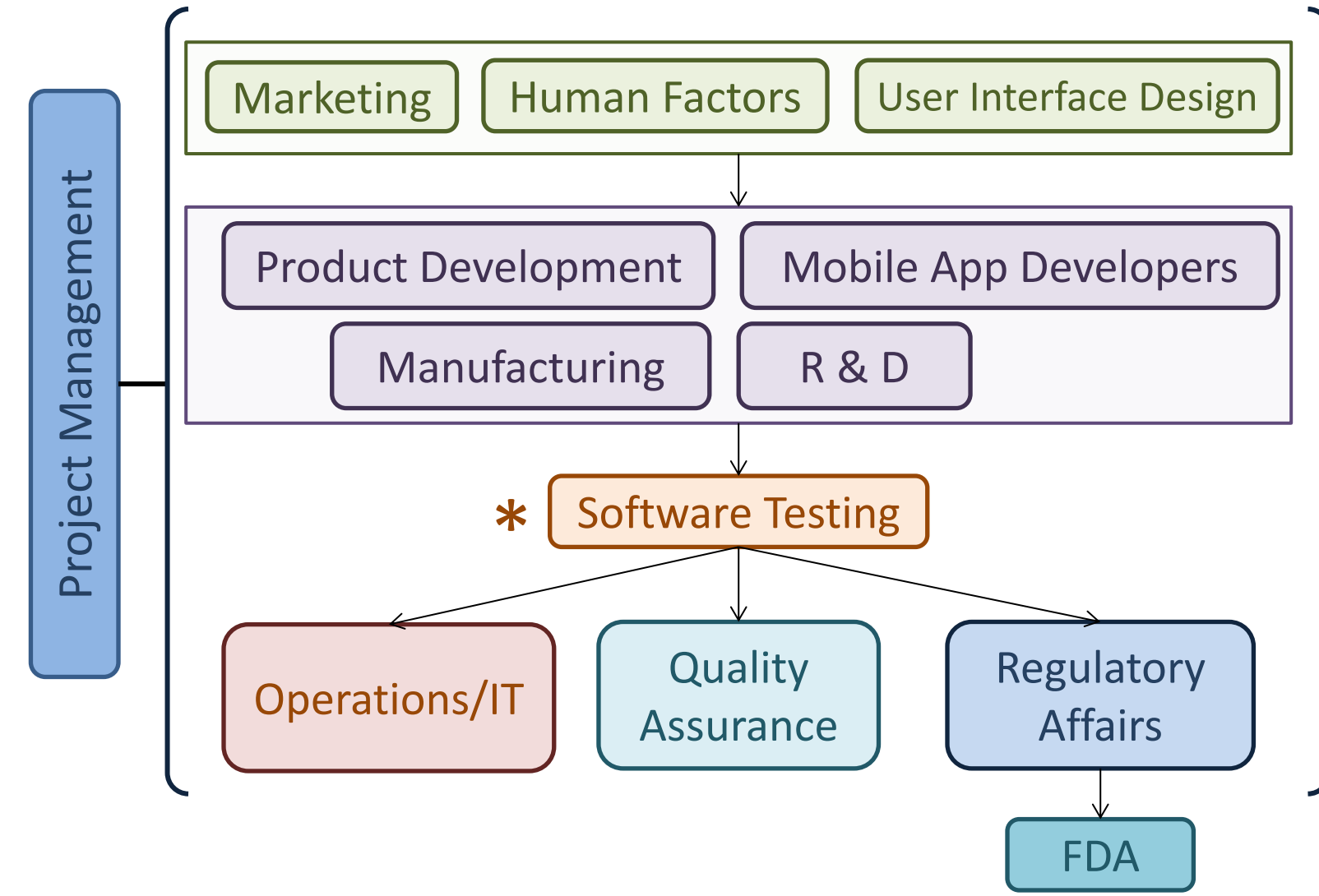
Verification and Validation of Continuous Glucose Monitoring Devices

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Business Organization of Dexcom

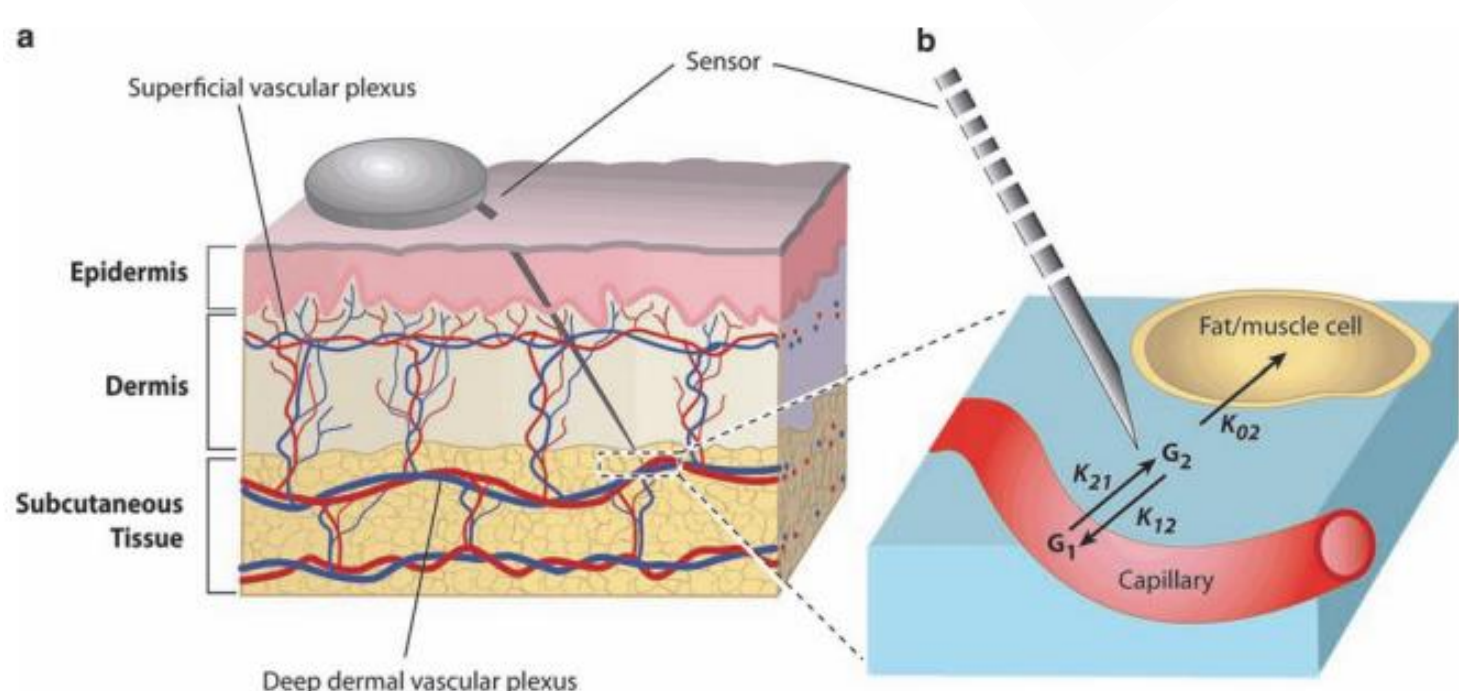
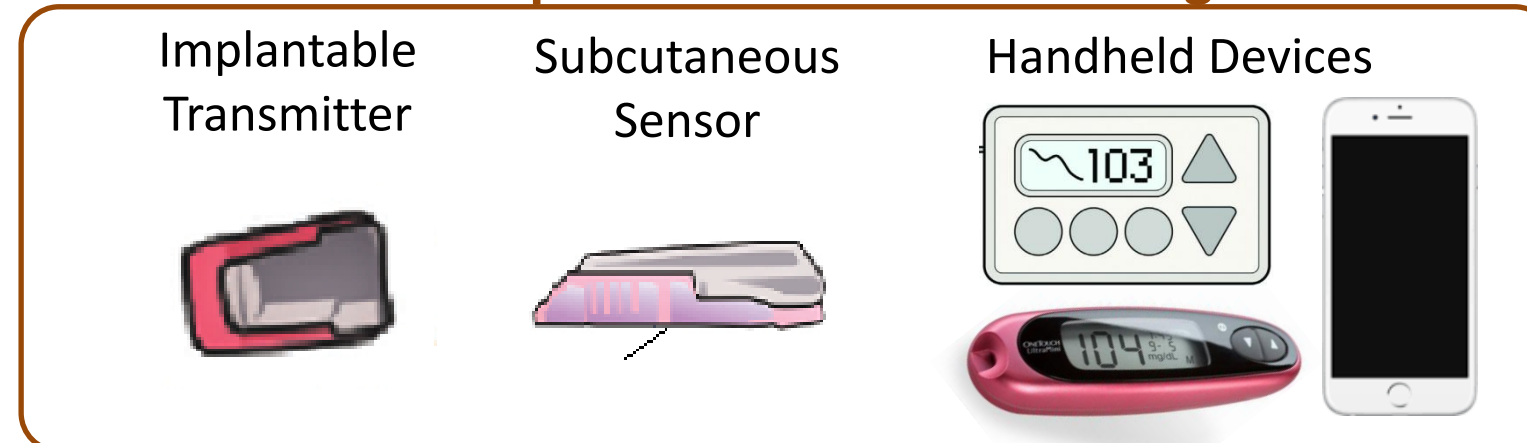
The software testing department lies between the product development and regulatory affairs.



Continuous Glucose Monitoring (CGM) Technology

- CGM technology allows patients to take control of their diabetes.
- This technology consists of a transmitter attached to a subcutaneous sensor; gathered data is then displayed via a handheld device.
- CGM data includes the patient's estimated glucose value (EGV), rate at which their EGV is changing, and whether the EGV is deviating from the normal range.
- For accurate readings, this technology requires proper calibration using a standard blood glucose meter.

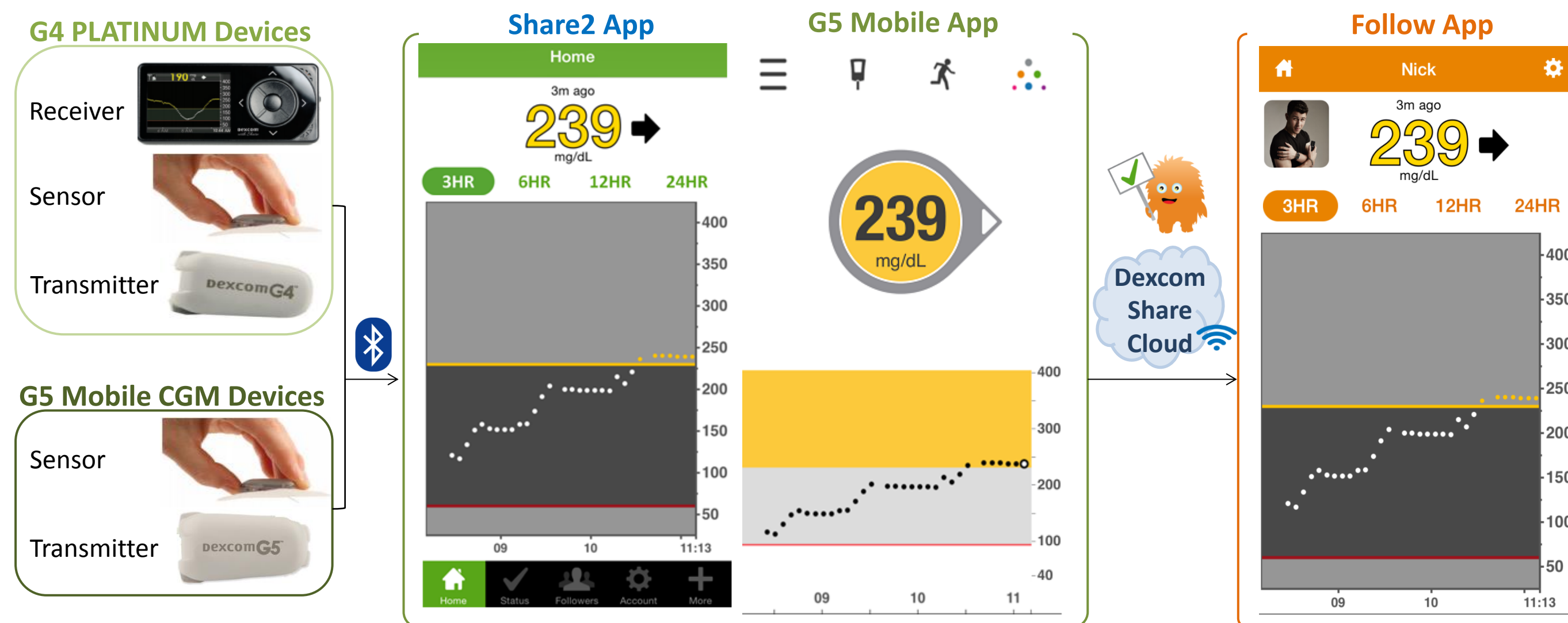
Main Components of CGM Technologies



Next Generation CGM Technology

Dexcom's CGM system involves various devices and software which monitors the patient's blood glucose every five minutes.

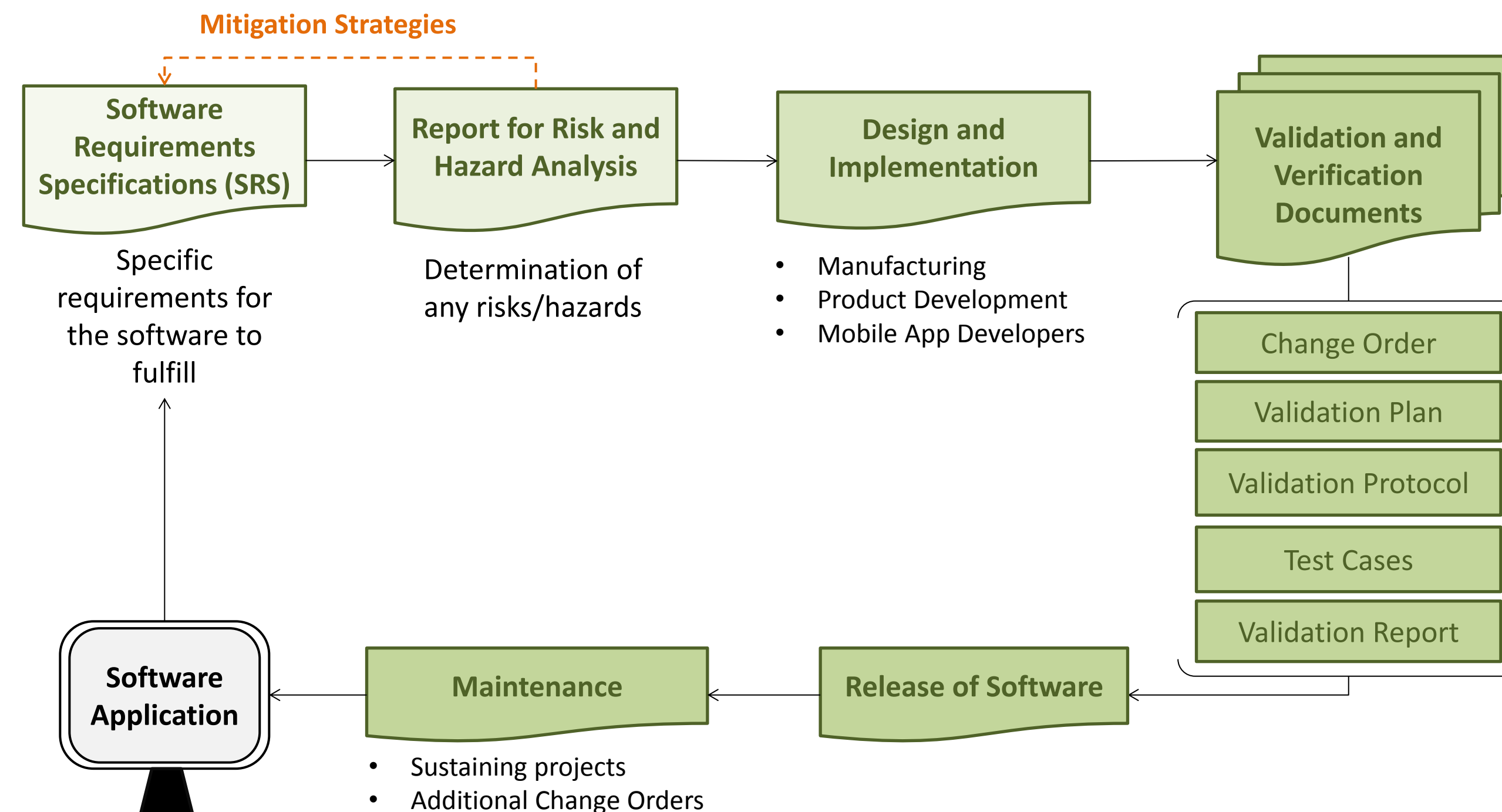
- SHARE2 App allows the patient to view and share their CGM data using their mobile device.
- FOLLOW App allows loved ones to keep track of the Sharer's CGM data from own mobile device.



Verification and Validation

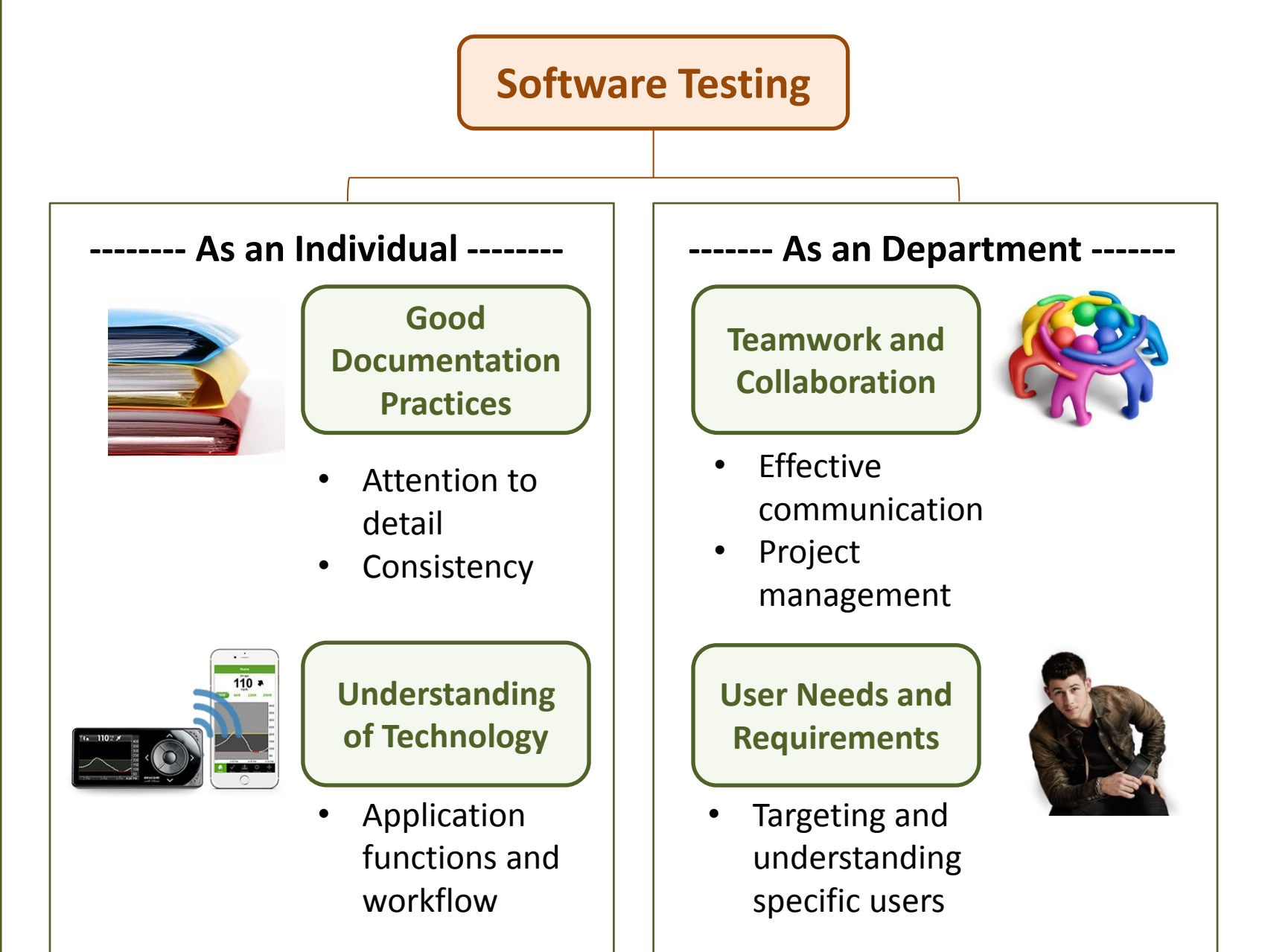
Verification is the process in which specification requirements are verified throughout each iteration step.
Validation is the process in which the end-product is validated and the requirements are being met.

- These two steps are included in the **Software Development Life Cycle** or **SDLC**. This process is divided into various phases and each phase includes an input and an output.
 - Each phase is verified and ensured that the output meets the requirements of the input.



Conclusion

Throughout this internship, I have gained valuable experience and important skills in software testing. Additionally, I have learned through the perspective of an individual versus the perspective of the whole department.



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References

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