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Example Software FMEA Template

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Software Name	FMEA ID	Revision	Date	Date Completed
ABC Application	000123	1.0	10/01/20XX	00/00/20XX
Software System / Module	Subsystems / Application		Approved By	
User Authentication, Data Encryption, Session Management			Kiran Gupta	
Team				
Brian Gomez (Software Engineer), Devon Gomez (Quality Assurance Lead), Victoria Pearson (Cybersecurity Specialist)				

Software Failure Mode and Effects Analysis (FMEA)

RPN Columns contain formulas to auto-calculate.

ID	Module / Component	Function	Potential Failure Mode	Effects of Failure	Severity	Causes	Current Controls	RPN		Recommended Actions	Owner	Date Due	Software FMEA Results				
								Prevention	Detection				Initial RPN	Final RPN	Date Completed	Actual Date of Completion	Severity
1	User Authentication	Verify user credentials	Incorrect password	Unauthorized access denied	8	Human error, weak password	Complex password requirements	3	120	Implement stronger password requirements	Brian Gomez	10/15/20XX	10/15/20XX	4	3	2	36
2	Data Encryption	Secure user data	Encryption failure	Data loss or corruption	9	Software bugs, misconfig	Regular security audits	4	108	Review key management process	Devon Gomez	10/15/20XX	10/15/20XX	7	3	2	42
3	Session Management	Manage user sessions	Session timeout	User logged out prematurely	7	Network latency	Default session timeout settings	4	140	Adjust session timeout settings	Victoria Pearson	10/20/20XX	10/19/20XX	4	3	2	36
4	API Integration	Interface with external systems	API call failure	Service unavailability, data sync issues	8	Network latency, API errors	Health checks, retry logic	4	192	Improve API error handling	Brian Gomez	10/20/20XX	10/20/20XX	6	3	2	36
5	User Interface (UI)	Display information to users	Incorrect data display	User confusion, incorrect decisions	7	Frontend bugs, data mismatch	Integration testing, user acceptance testing	3	84	Enhance frontend testing, data validation	Devon Gomez	10/20/20XX	10/20/20XX	5	3	2	30
6	Database Management	Store and retrieve data	Data retrieval failure	Incomplete or corrupted data returned	9	Query optimization issues	Database query review process	4	180	Optimize database queries	Victoria Pearson	10/25/20XX	11/04/20XX	4	3	2	36
7	Logging and Monitoring	Log system events and errors	Missing or incorrect log entries	Inability to diagnose issues	8	Inadequate logging configuration	Standard logging guidelines	5	160	Regular review of log files	Brian Gomez	11/01/20XX	11/01/20XX	4	3	2	36
8	User Notifications	Notify users of important events	Missing notifications	User unaware of critical actions	7	Notification service failure	Redundant notification systems	4	84	Implement fallback notification paths	Devon Gomez	11/01/20XX	11/04/20XX	5	3	2	30
9								0									0
10								0									0
11								0									0
12								0									0
13								0									0
14								0									0

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DROPDOWN KEYS

YES / NO	PRIORITY	STATUS	RATING
Yes	Low	Not Started	1
No	Medium	In Progress	2
	High	Complete	3
		Needs Review	4
		Approved	5
		Overdue	6
		On Hold	7
			8
			9
			10

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