

Capstone Project Proposal for
“Unravelling IPL's Success Factors”
2023S-T2 EPM 2273
Advanced Data Analytics 01 (PMLM Group 1)
Ovais Abessi
Date: 12th August 2023

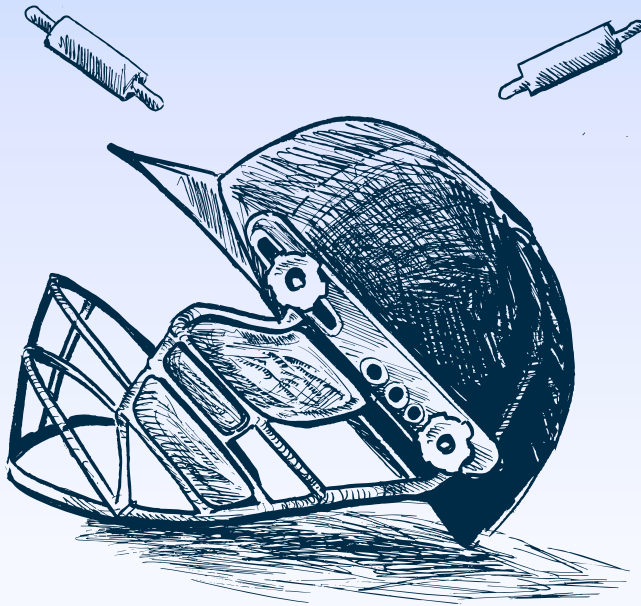
Group 4

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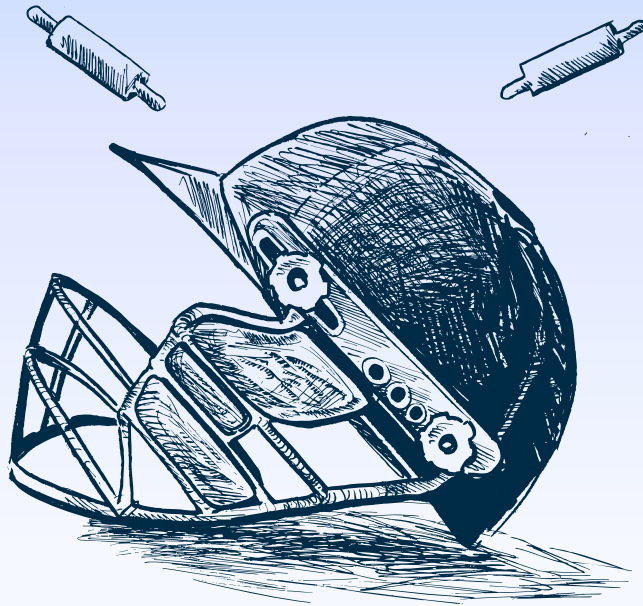


INTRODUCTION: “Unraveling IPL's Success Factors”



- Established in 2008 by BCCI, popular T20 cricket league.
- Gain insights into RCB'S 2023 Team performance through data analysis.
- Identifying success factors, creating predictive model for match outcomes and success for next season.
- Data-driven decisions, optimized team performance.
- **Goal:** Predictive model accuracy **(75%)**, success elements analysis, player performance evaluation.
- **Vision:** Provide reliable reports to RCB management for them to work upon.

OUTCOMES: “Unraveling IPL's Success Factors”



- **Predictive Model**

Machine learning-based model for match outcomes.
Forecasts match results, aids strategic planning.

- **Success Element Analysis**

Detailed report on crucial success elements.
Empowers management for improved team performance.

- **Player Performance Report**

Comprehensive analysis of individual player contributions.
Optimizes player selections and skill development.

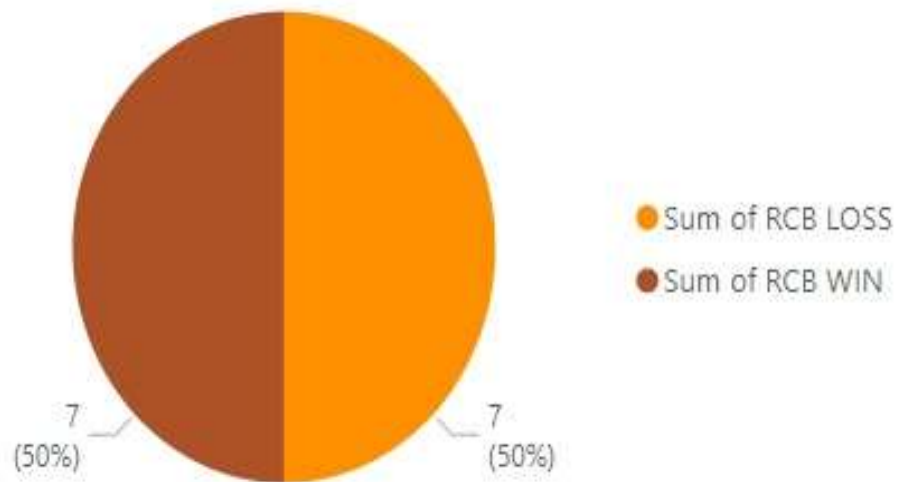
Team 1	Team 2	Winner	Margin	Ground	Match Date
<u>RCB</u>	<u>Mumbai</u>	RCB	8 wickets	<u>Bengaluru</u>	02-Apr-23
<u>KKR</u>	<u>RCB</u>	KKR	81 runs	<u>Eden Gardens</u>	06-Apr-23
<u>RCB</u>	<u>Super Giants</u>	Super Giants	1 wicket	<u>Bengaluru</u>	10-Apr-23
<u>RCB</u>	<u>Capitals</u>	RCB	23 runs	<u>Bengaluru</u>	15-Apr-23
<u>RCB</u>	<u>Super Kings</u>	Super Kings	8 runs	<u>Bengaluru</u>	17-Apr-23
<u>Punjab Kings</u>	<u>RCB</u>	RCB	24 runs	<u>Mohali</u>	20-Apr-23
<u>RCB</u>	<u>Royals</u>	RCB	7 runs	<u>Bengaluru</u>	23-Apr-23
<u>RCB</u>	<u>KKR</u>	KKR	21 runs	<u>Bengaluru</u>	26-Apr-23
<u>Super Giants</u>	<u>RCB</u>	RCB	18 runs	<u>Lucknow</u>	01-May-23
<u>Capitals</u>	<u>RCB</u>	Capitals	7 wickets	<u>Delhi</u>	06-May-23
<u>Mumbai</u>	<u>RCB</u>	Mumbai	6 wickets	<u>Wankhede</u>	09-May-23
<u>Royals</u>	<u>RCB</u>	RCB	112 runs	<u>Jaipur</u>	14-May-23
<u>Sunrisers</u>	<u>RCB</u>	RCB	8 wickets	<u>Hyderabad</u>	18-May-23
<u>RCB</u>	<u>Titans</u>	Titans	6 wickets	<u>Bengaluru</u>	21-May-23

Presenting Organized Match Data

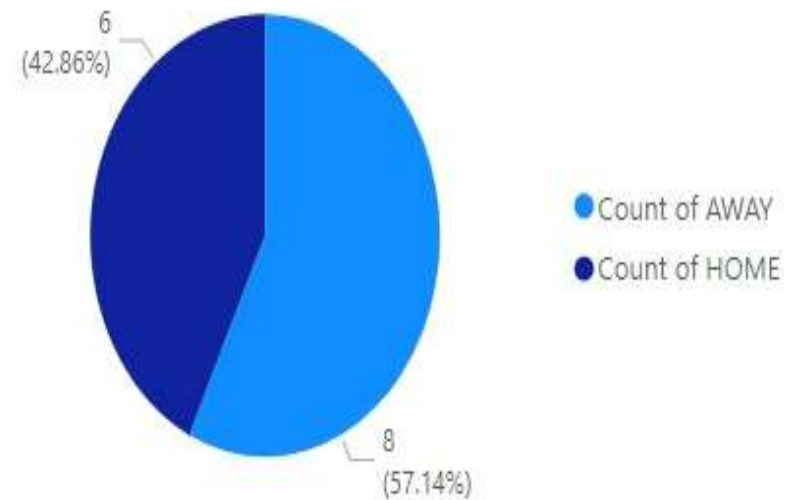
Based on the structured data, following graphical presentation on key areas were established which will be a base for the actual project.

RCB WIN AND LOSS RATIO

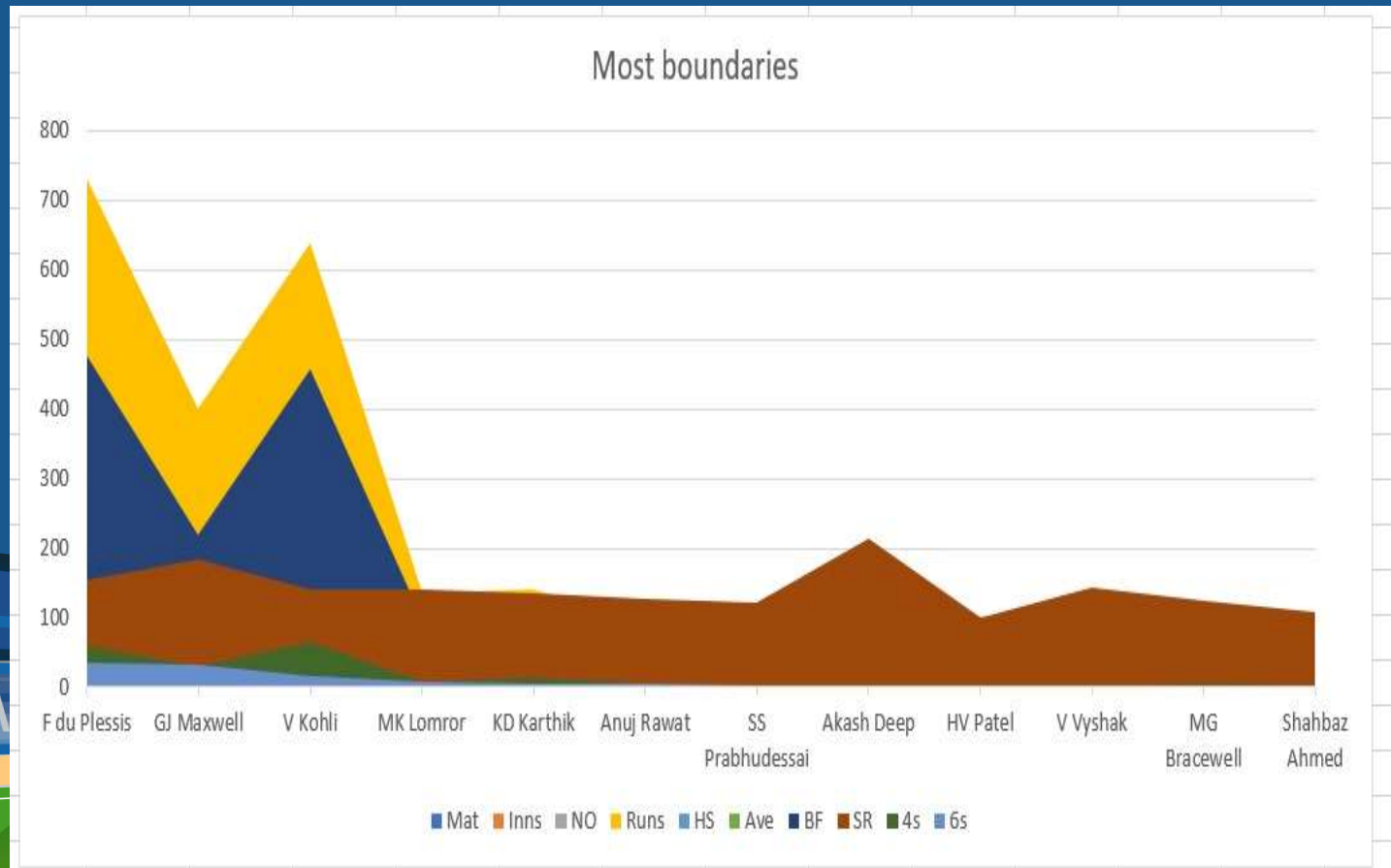
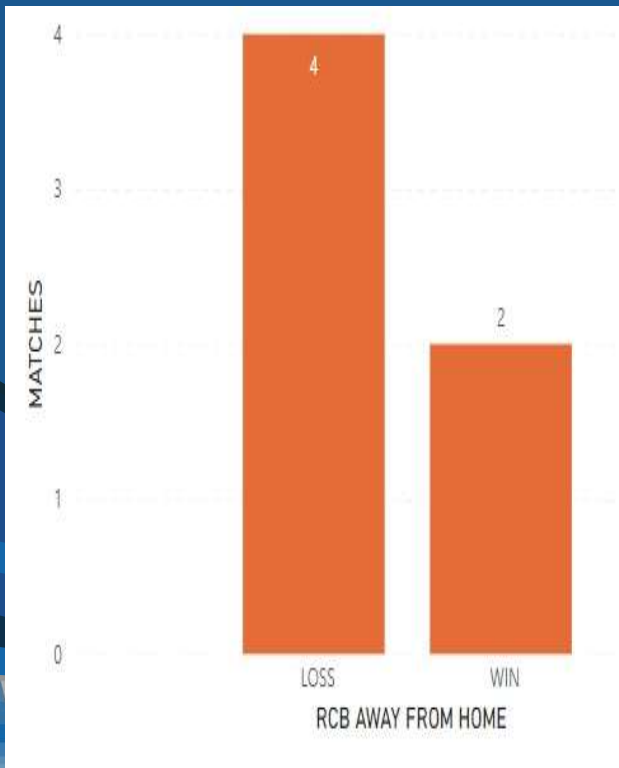
RCB WIN AND LOSS RATIO



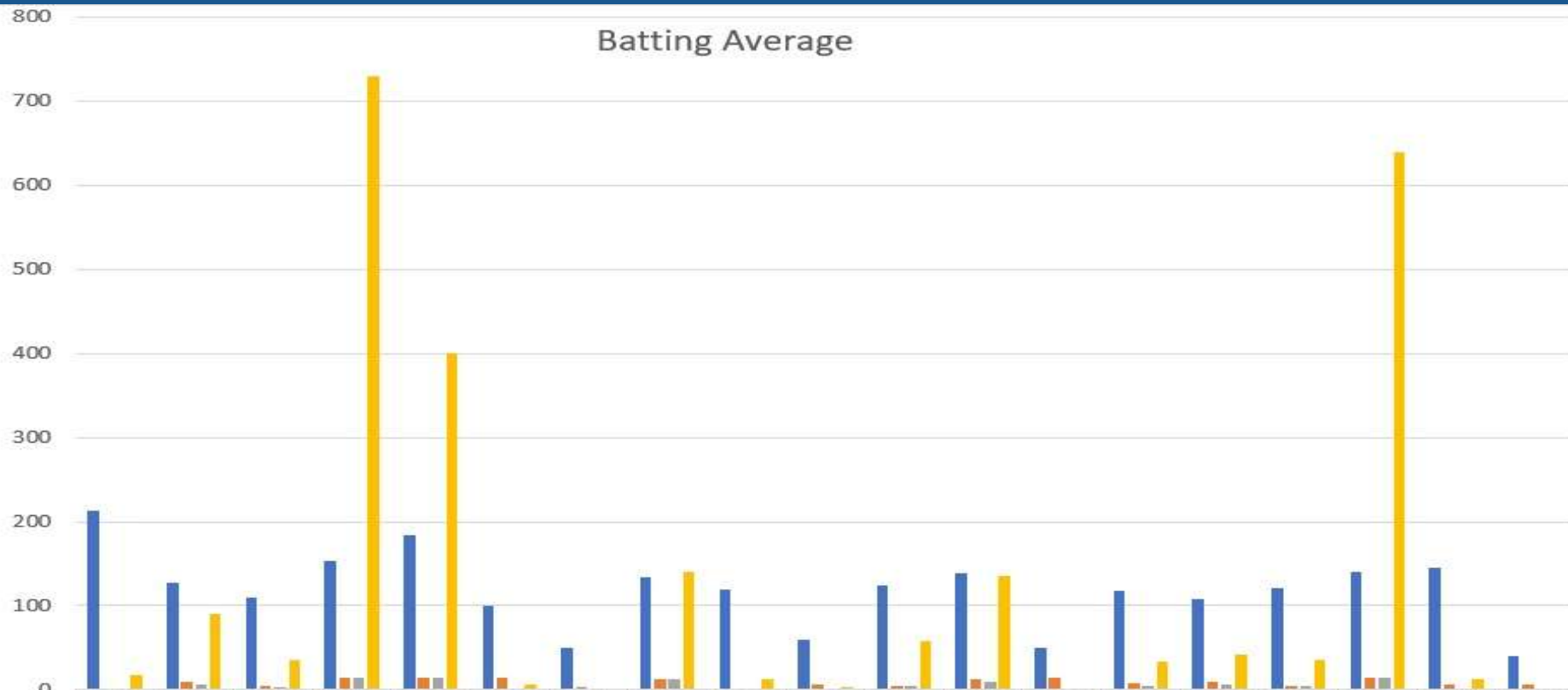
Count of AWAY and Count of HOME



Player	Span	Mat	Inns	NO	Runs	HS	Ave	BF	SR	100	50	0	4s	6s
F du Plessis	2023-2023	14	14	1	730	84	56.15	475	153.68	-	8	-	60	36
GJ Maxwell	2023-2023	14	14	2	400	77	33.33	218	183.48	-	5	2	29	31
V Kohli	2023-2023	14	14	2	639	101*	53.25	457	139.82	2	6	1	65	16
MK Lomror	2023-2023	12	10	2	135	54*	16.87	97	139.17	-	1	1	9	8
KD Karthik	2023-2023	13	13	1	140	30	11.66	104	134.61	-	-	4	13	5
Anuj Rawat	2023-2023	9	7	4	91	29*	30.33	71	128.16	-	-	-	6	4
SS Prabhudessai	2023-2023	5	4	0	35	19	8.75	29	120.68	-	-	1	1	2
Akash Deep	2023-2023	2	1	0	17	17	17	8	212.5	-	-	-	2	1
HV Patel	2023-2023	14	2	0	6	6	3	6	100	-	-	1	0	1
V Vyshak	2023-2023	7	2	1	13	13*	13	9	144.44	-	-	1	0	1
MG Bracewell	2023-2023	5	4	2	58	26	29	47	123.4	-	-	-	6	1
Shahbaz Ahmed	2023-2023	10	6	2	42	20*	10.5	39	107.69	-	-	-	3	1



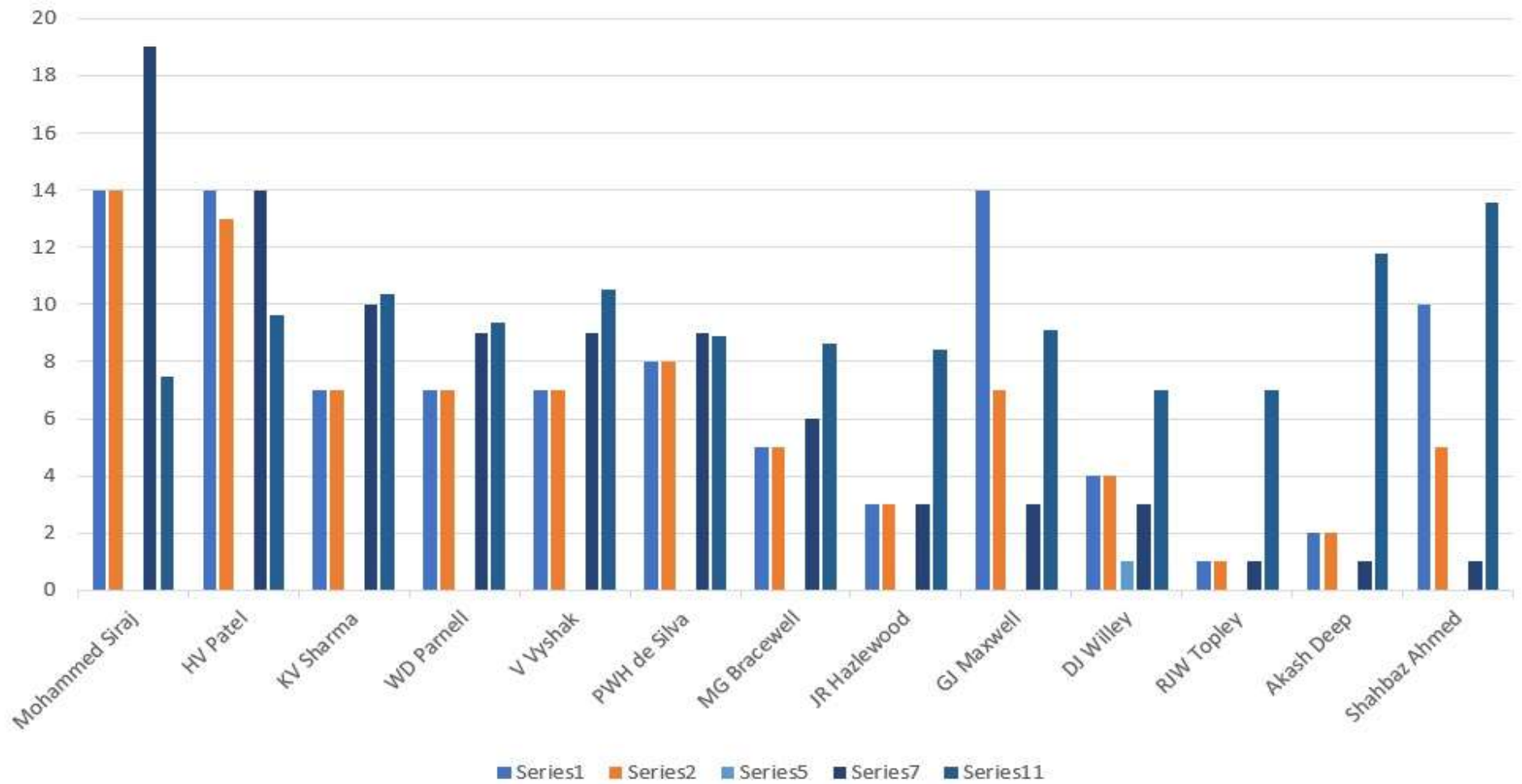
Batting Average



	2023-2023	2023-2023	2023-2023	2023-2023	2023-2023	2023-2023	2023-2023	2023-2023	2023-2023	2023-2023	2023-2023	2023-2023	2023-2023	2023-2023	2023-2023	2023-2023	2023-2023	2023-2023	2023-2023
	Akash Deep	Anuj Rawat	DJ Willey	F du Plessis	GJ Maxwell	HV Patel	JR Hazlewood	KD Karthik	KM Jadhav	KV Sharma	MG Bracewell	MK Lomror	Mohammed Siraj	PWH de Silva	Shahbaz Ahmed	SS Prabhudessai	V Kohli	V Vyshak	WD Parnell
Sum of SR	212.5	128.16	109.37	153.68	183.48	100	50	134.61	120	60	123.4	139.17	50	117.85	107.69	120.68	139.82	144.44	40
Sum of Mat	2	9	4	14	14	14	3	13	2	7	5	12	14	8	10	5	14	7	7
Sum of Inns	1	7	3	14	14	2	1	13	1	2	4	10	2	5	6	4	14	2	1
Sum of Runs	17	91	35	730	400	6	1	140	12	3	58	135	1	33	42	35	639	13	2

Player	Span	Mat	Inns	Balls	Overs	Mdns	Runs	Wkts	BBI	BBM	Ave	Econ	SR
Mohammed Siraj	2023-2023	14	14	300	50	-	375	19	21-Apr	21-Apr	19.73	7.5	15.78
HV Patel	2023-2023	14	13	282	47	-	454	14	3/32	3/32	32.42	9.65	20.14
KV Sharma	2023-2023	7	7	129	21.3	-	223	10	19-Feb	19-Feb	22.3	10.37	12.9
WD Parnell	2023-2023	7	7	151	25.1	-	236	9	10-Mar	10-Mar	26.22	9.37	16.77
V Vyshak	2023-2023	7	7	144	24	-	253	9	20-Mar	20-Mar	28.11	10.54	16
PWH de Silva	2023-2023	8	8	174	29	-	258	9	24-Feb	24-Feb	28.66	8.89	19.33
MG Bracewell	2023-2023	5	5	66	11	-	95	6	13-Feb	13-Feb	15.83	8.63	11
JR Hazlewood	2023-2023	3	3	54	9	-	76	3	15-Feb	15-Feb	25.33	8.44	18
GJ Maxwell	2023-2023	14	7	62	10.2	-	94	3	03-Jan	03-Jan	31.33	9.09	20.66
DJ Willey	2023-2023	4	4	90	15	1	105	3	16-Feb	16-Feb	35	7	30
RJW Topley	2023-2023	1	1	12	2	-	14	1	14-Jan	14-Jan	14	7	12
Akash Deep	2023-2023	2	2	30	5	-	59	1	29-Jan	29-Jan	59	11.8	30
Shahbaz Ahmed	2023-2023	10	5	42	7	-	95	1	1/38	1/38	95	13.57	42

Bowling Average



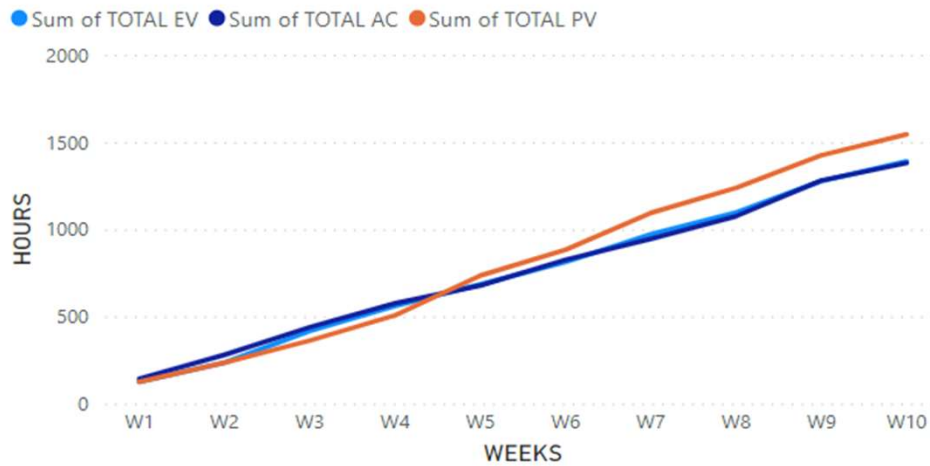
Curve Progress Comparison With Planned

Project progress details																									
	PM			Data Analysing team			Video editing team			SMEs			Content writing			Data science and research			Total			KPI			
	PV	EV	AC	PV	EV	AC	PV	EV	AC	PV	EV	AC	PV	EV	AC	PV	EV	AC	TOTAL PV	TOTAL EV	TOTAL AC	SV	CV	SPI	CPI
W1	20	20	22	30	30	35	40	40	45	15	15	17	10	10	12	10	10	12	125	125	143	0	-18	1	0.874126
W2	44	30	42	51	50	55	64	75	85	26	30	34	25	25	32	25	25	32	235	235	280	0	-45	1	0.839286
W3	60	58	61	76	84	85	98	116	125	39	54	53	40	48	52	49	58	63	362	418	439	56	-21	1.154696	0.952164
W4	78	70	79	103	114	105	135	152	165	55	73	72	57	62	67	79	90	88	507	561	576	54	-15	1.106509	0.973958
W5	97	86	90	145	138	130	190	185	190	85	84	82	88	75	80	130	116	105	735	684	677	-51	7	0.930612	1.01034
W6	113	100	110	169	155	150	216	228	235	105	99	105	128	92	95	151	138	130	882	812	825	-70	-13	0.920635	0.984242
W7	148	115	120	205	190	180	270	260	265	136	128	115	148	108	110	187	170	155	1094	971	945	-123	26	0.887569	1.027513
W8	166	132	135	235	212	205	306	292	290	158	136	130	160	132	130	213	192	185	1238	1096	1075	-142	21	0.885299	1.019535
W9	175	152	155	279	235	230	359	365	375	179	155	150	179	145	150	254	225	220	1425	1277	1280	-148	-3	0.89614	0.997656
W10	195	165	170	300	255	245	400	380	390	190	170	165	190	165	160	270	255	250	1545	1390	1380	-155	10	0.899676	1.007246

Data Source

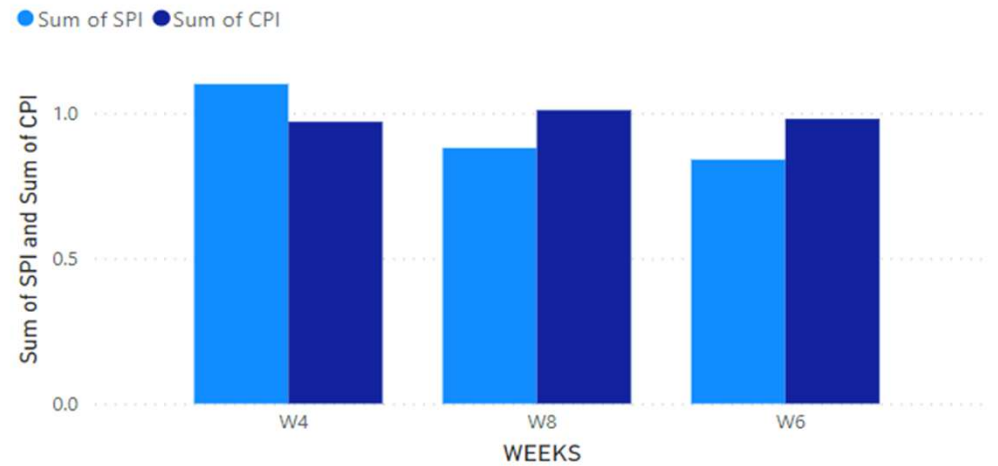
PROJECT DURATION: 10 WEEKS

EVM OF OVERALL DURATION

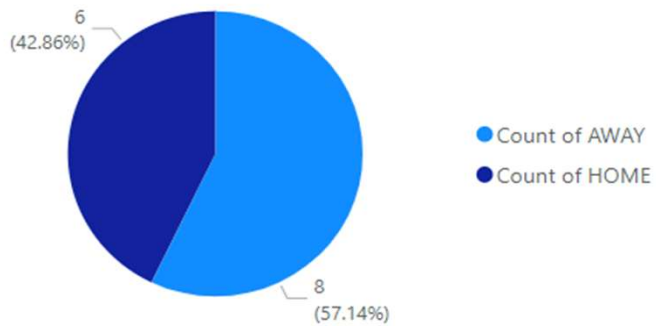


DASHBOARD

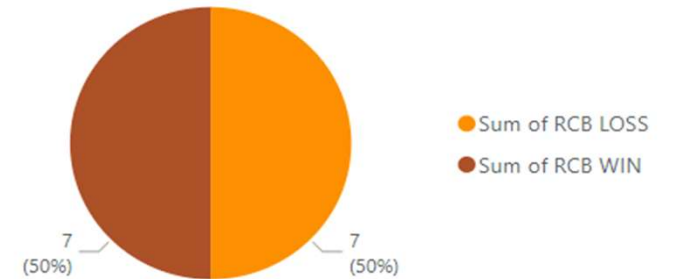
Sum of SPI and Sum of CPI by WEEKS



Count of AWAY and Count of HOME

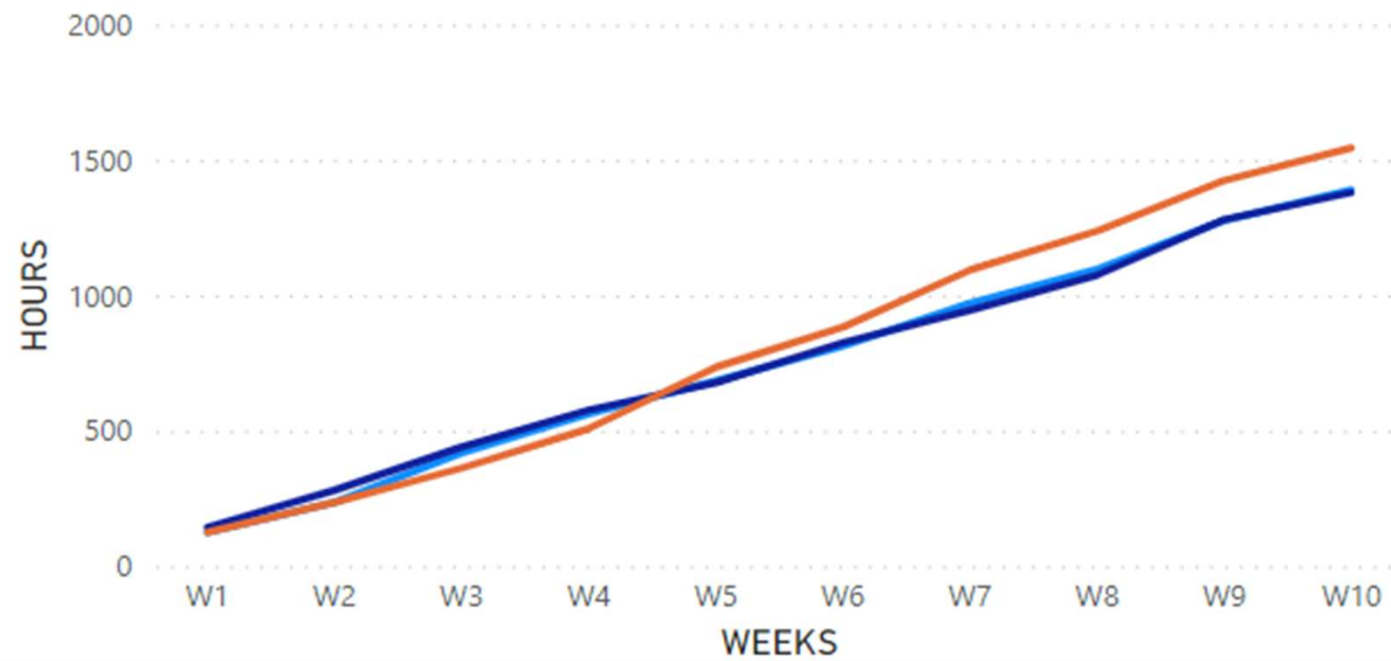


RCB WIN AND LOSS RATIO

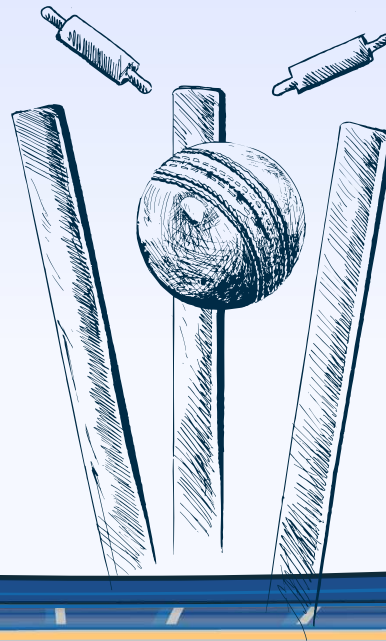


EVM OF OVERALL DURATION

● Sum of TOTAL EV ● Sum of TOTAL AC ● Sum of TOTAL PV



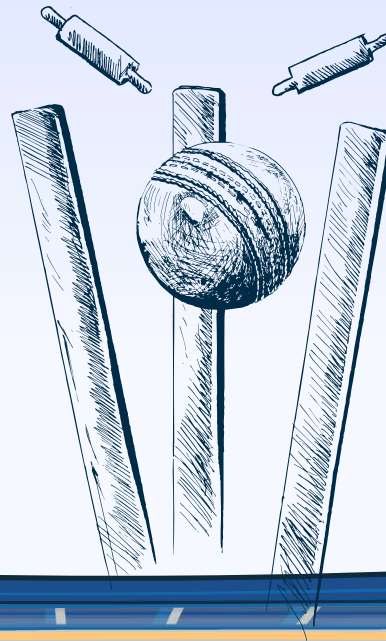
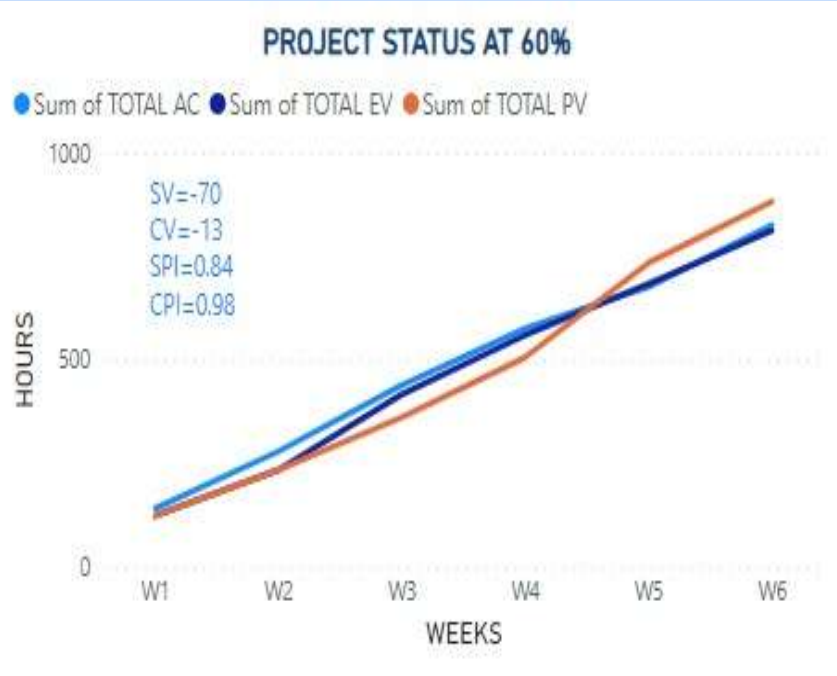
Project Status at 40% (4th week)



• Action Plan

- Proactive cross-departmental collaboration for aligned expectations and improved communication.
- Address project manager's performance variation.
- Balance video editing team's meticulous approach with budget constraints.
- Monitor and adjust budget allocations.
- Share collaboration practices and promote continuous improvement in resource utilization.
- Uphold timely project completion.

Project status at 60% (6th week)



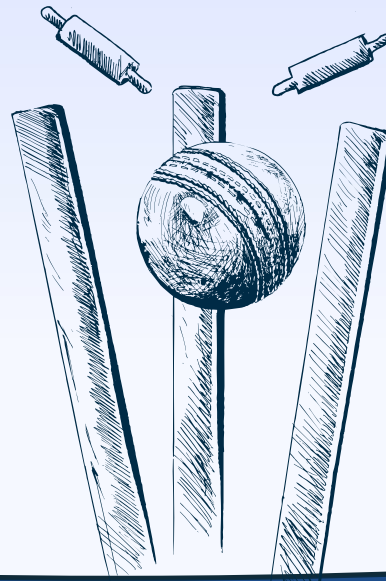
• Action Plan

- Cross-departmental collaboration through open communication, aligning expectations, and clarifying deliverables.
- Guidance and resources for goal alignment
- optimizing the video editing approach by balancing meticulous quality with budget constraints, potentially leveraging automation.
- Regular budget monitoring and adjustments

Project status at 80% (8th week):

PROJECT STATUS AT 80%

● Sum of TOTAL AC ● Sum of TOTAL EV ● Sum of TOTAL PV



• Action plan

- proactively realigning departmental efforts and enhancing communication
- Balance meticulous work with budget constraints
- Share approach across departments for ongoing resource optimization
- Uphold financial control
- Achieve desired project outcomes within established timeframe

KEY PERFORMANCE INDEX

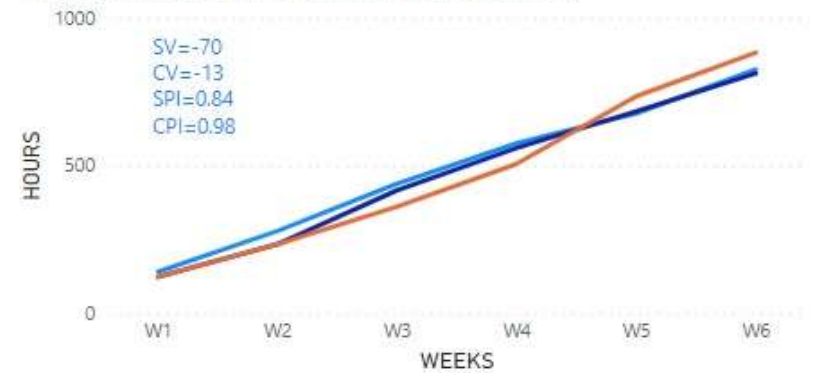
PROJECT STATUS AT 40%

● Sum of TOTAL AC ● Sum of TOTAL EV ● Sum of TOTAL PV



PROJECT STATUS AT 60%

● Sum of TOTAL AC ● Sum of TOTAL EV ● Sum of TOTAL PV



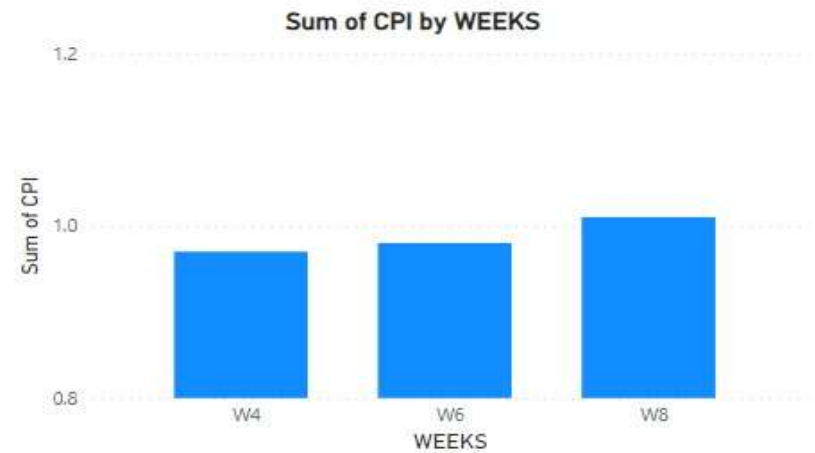
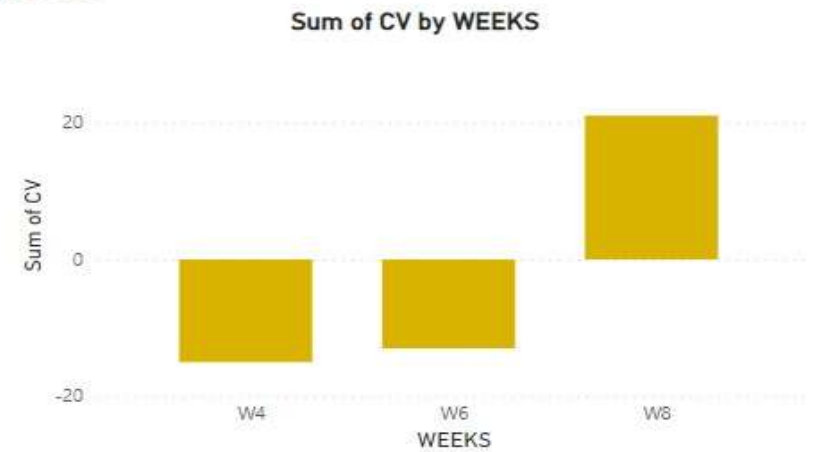
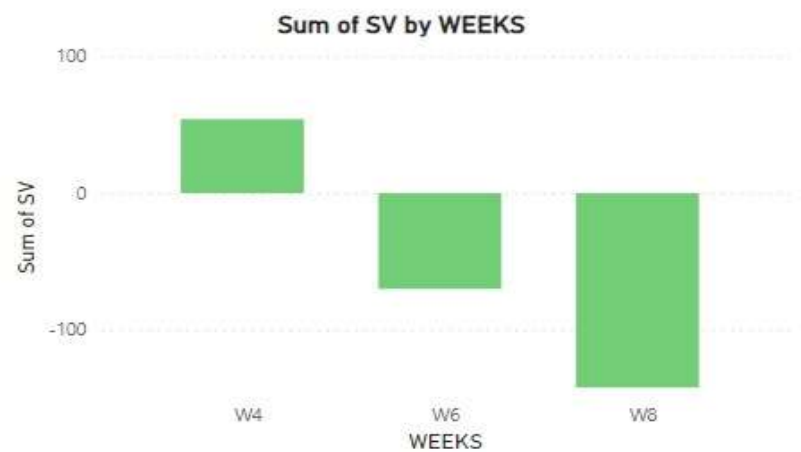
PROJECT STATUS AT 80%

● Sum of TOTAL AC ● Sum of TOTAL EV ● Sum of TOTAL PV



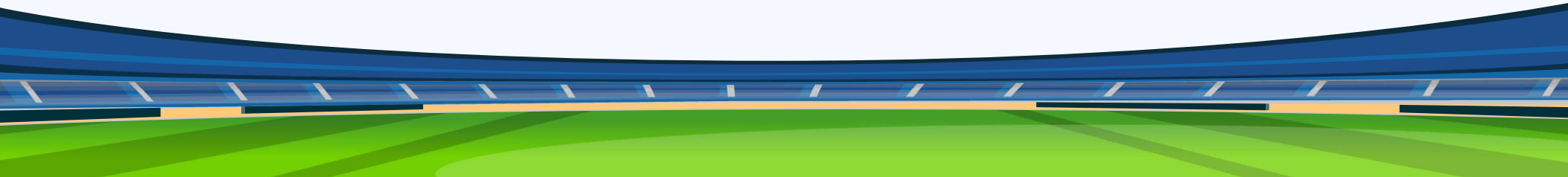
These KPIs provide insights into the project's adherence to schedule and budget, facilitating informed decision-making.

KPI AT DIFFERENT STAGES



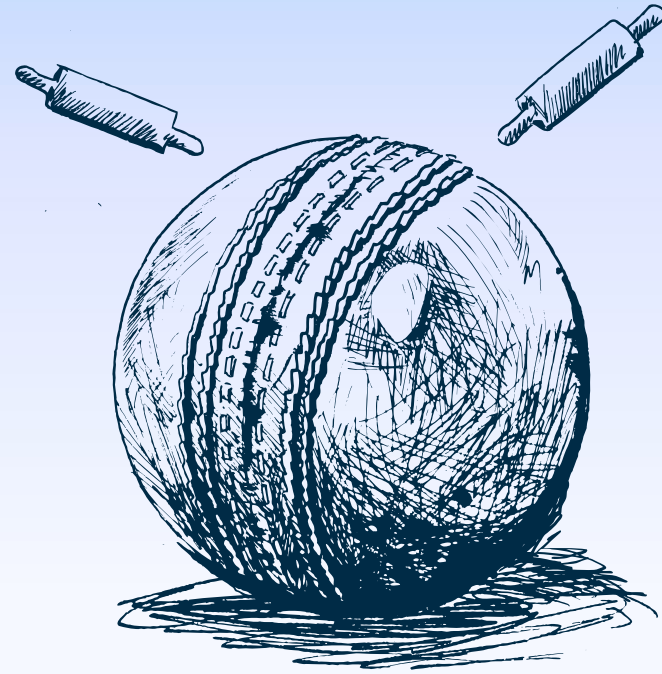
- **Future Strategies**

1. **Predictive Modeling Refinement:**
2. **Dynamic Resource Allocation:**
3. **Advanced Visualizations:**
4. **Benchmarking and Competitor Analysis:**
5. **Incorporate Fan Engagement Data:**
6. **Machine Learning for Player Performance:**
7. **Long-Term Strategy Alignment:**
8. **Knowledge Sharing and Training:**
9. **Real-time Monitoring and Alerts:**
10. **Continuous Improvement:**



Conclusion

In summary, this project aimed to transform RCB's IPL approach through data-driven insights, yielding valuable findings on team dynamics, player contributions, and performance trends. Despite challenges, actionable recommendations were provided for improved collaboration, resource allocation, and cost management. KPI analysis highlighted progress and areas needing attention, with successful collaboration driving ahead of schedule progress, while hurdles in communication and alignment led to deviations. The video editing team's quality focus posed budget constraints. Through iterative action plans, the project aimed to address challenges and seize improvement opportunities.





THANK YOU

