

```
@startuml
```

```
title Use Case Diagram - Agile Sprint Management Dashboard
```

```
actor "Scrum Master" as SM
```

```
actor "Product Owner" as PO
```

```
actor "Developer" as DEV
```

```
rectangle "Agile Sprint Management Dashboard" {
```

```
    (Login)
```

```
    (Create Sprint)
```

```
    (Add Tasks to Backlog)
```

```
    (Update Task Status)
```

```
    (View Sprint Velocity)
```

```
    (Analyze Backlog Health)
```

```
    (Monitor Team Workload)
```

```
    (Generate Sprint Report)
```

```
}
```

```
SM --> (Login)
```

```
SM --> (Create Sprint)
```

```
SM --> (View Sprint Velocity)
```

```
SM --> (Monitor Team Workload)
```

```
SM --> (Generate Sprint Report)
```

```
PO --> (Login)
```

```
PO --> (Add Tasks to Backlog)
```

```
PO --> (Analyze Backlog Health)
```

```
PO --> (View Sprint Velocity)
```

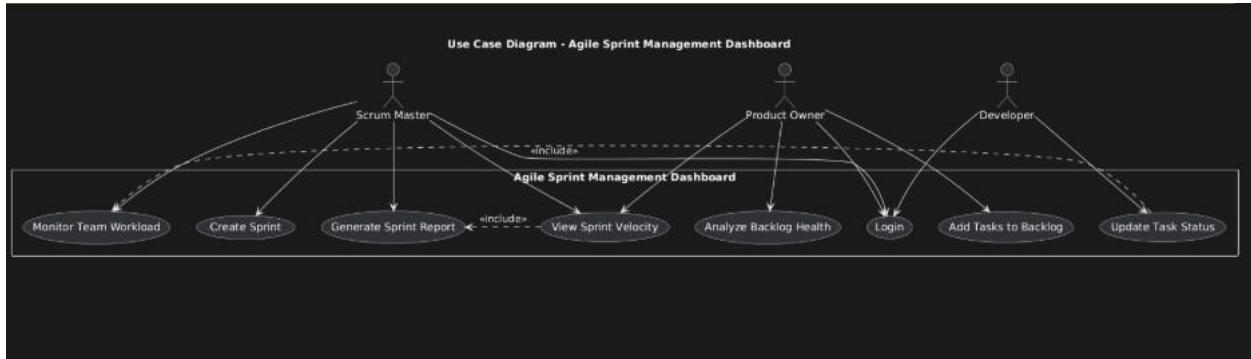
DEV --> (Login)

DEV --> (Update Task Status)

(View Sprint Velocity) .> (Generate Sprint Report) : <<include>>

(Update Task Status) .> (Monitor Team Workload) : <<include>>

@enduml



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title Component Diagram - Agile Sprint Management Dashboard

package "Agile Sprint Dashboard" {

[Web UI] --> [API Gateway]

[API Gateway] --> [Sprint Service]

[API Gateway] --> [Task Service]

[API Gateway] --> [Analytics Service]

[API Gateway] --> [Authentication Service]

[Sprint Service] --> [Database]

[Task Service] --> [Database]

[Analytics Service] --> [ML Engine]

}

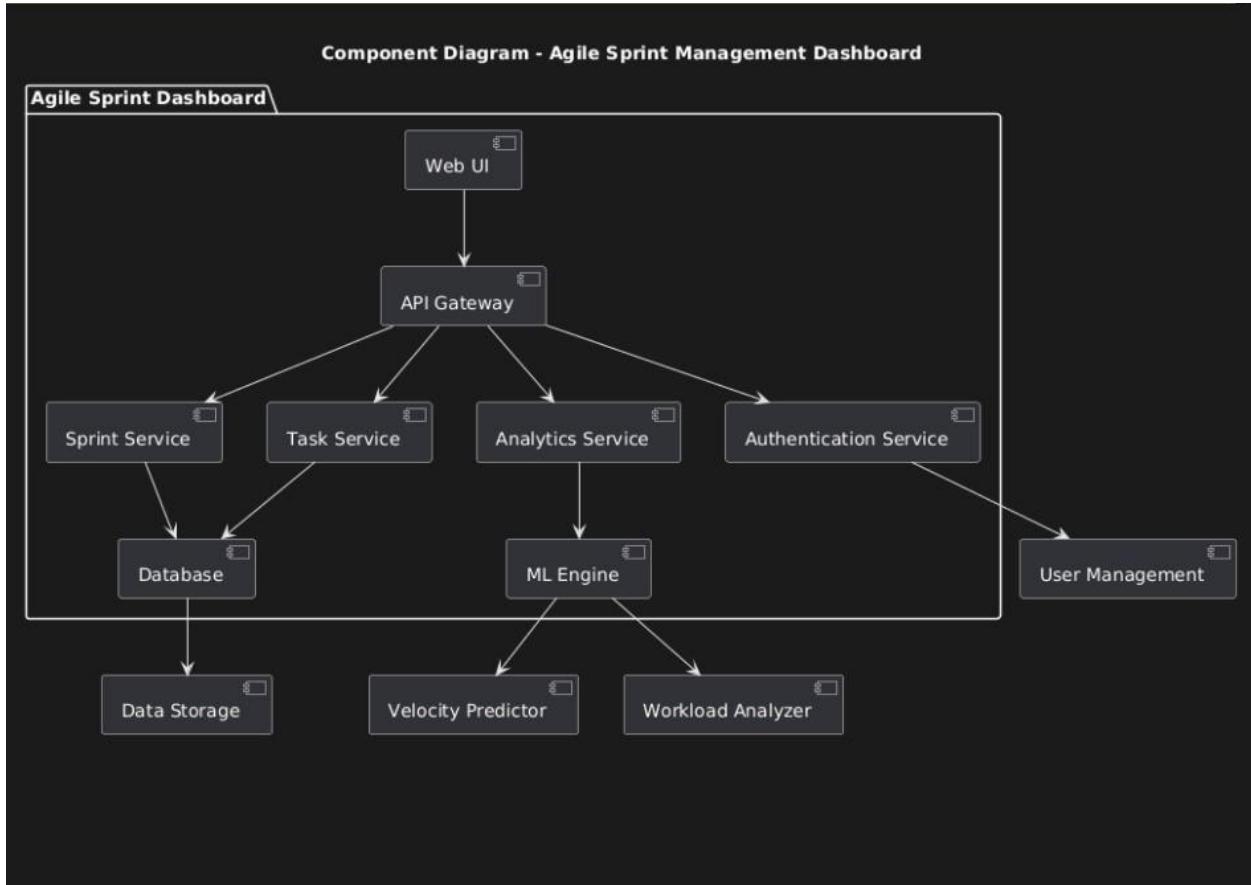
[ML Engine] --> [Velocity Predictor]

[ML Engine] --> [Workload Analyzer]

[Database] --> [Data Storage]

[Authentication Service] -down-> [User Management]

@enduml



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title Activity Diagram - Agile Sprint Management Dashboard

start

:User Logs In;

if (Valid User?) then (yes)

:Show Dashboard;

else (no)

:Display Error Message;

stop

endif

:Select Sprint;

:View Tasks and Velocity;

if (Update Task?) then (yes)

:Change Task Status;

endif

:Run Backlog Health Check;

:Compute Sprint Velocity;

:Predict Team Workload using ML Engine;

if (Generate Report?) then (yes)

:Generate Sprint Report;

:Display Insights;

endif

stop

@enduml

Activity Diagram - Agile Sprint Management Dashboard

