



shovelSmart



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Background

- Shoveling heavy loads of snow increases **risk of physical injury and heart attacks.**
- Climate change contributes to **dangerous storms and heavier, wetter snow.**

Target Audience

shovelSmart aims to support **anyone who finds shoveling snow difficult or time consuming.** The app especially benefits the **elderly and homeowners.**



App Architecture



What is shovelSmart?

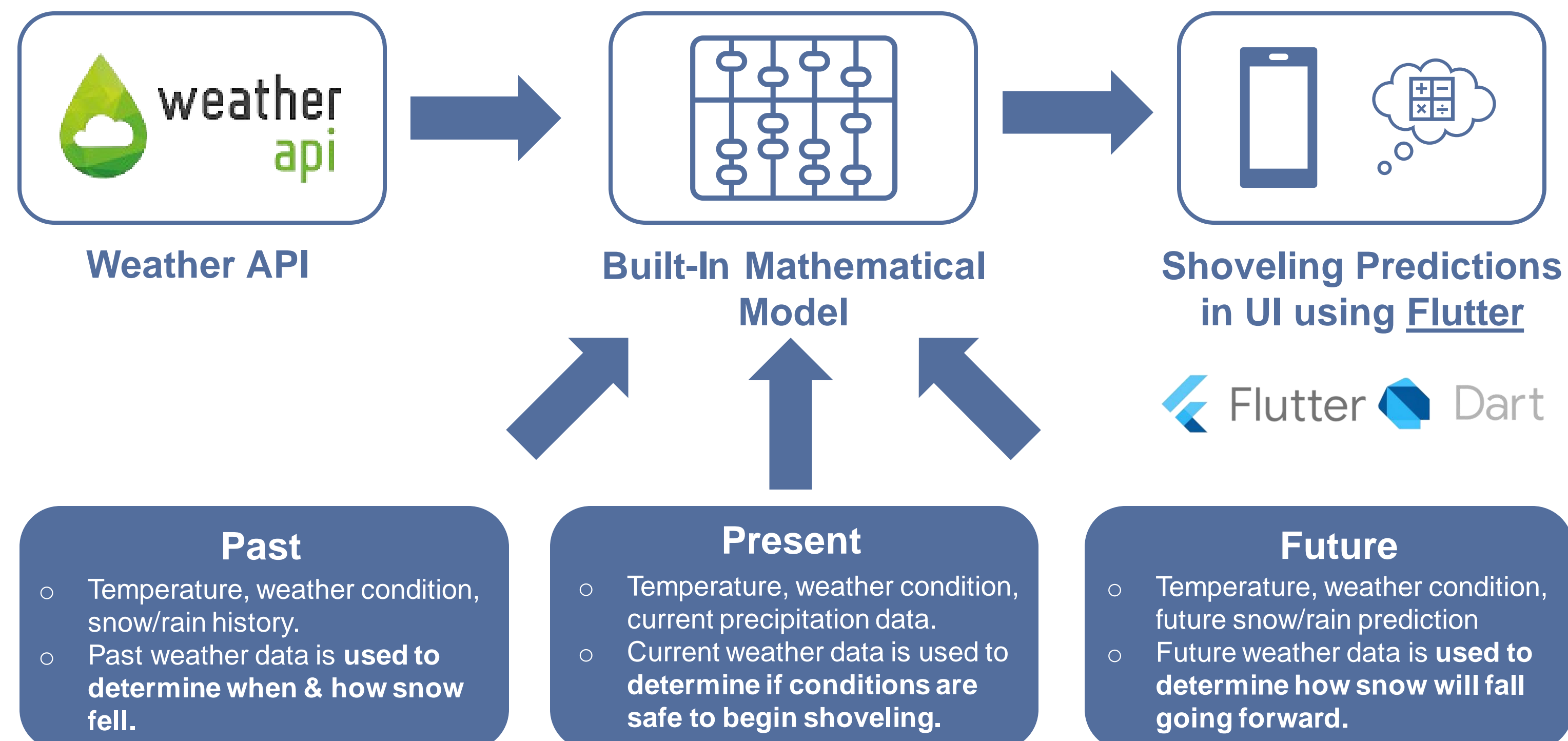
shovelSmart is a mobile application that allows its users to **shovel snowfall faster and smarter.**

Features

- **Snow weight prediction**
 - How heavy is the snowfall?
- **Shovel time estimation**
 - How long will it take to shovel?
- **Shovel time/effort optimization**
 - When should I start shoveling?



System Architecture & Models



Competitors



Shovler, Inc.

- Aims to **connect shovelers** with app users who are **seeking local shoveling services.**
- High-quality dual-UI with in-app purchasing features, rating systems, and order records.
- **Poses risks to homeowners** through **location sharing and failure to receive service.**



Quikplow

- Connects shovelers with users who need shoveling services.
- Sleek, profit-based, easy-to-use interface
- **Knowledge gap:** homeowners/shovelers are unable to determine **how they should best approach the unpredictable and unforgiving weather circumstances.**

Future Extensions

Winter Testing

- Test in real-world environments.
- Refine the model based upon testing data.



Incorporate ML

- Incorporate Machine Learning (ML) models
- Adaptable predictions for shoveling time & optimization



Pre-Scheduled Pulls

- Use Cron system job-scheduler to pre-pull weather data
- Notifies users of timing and optimization

