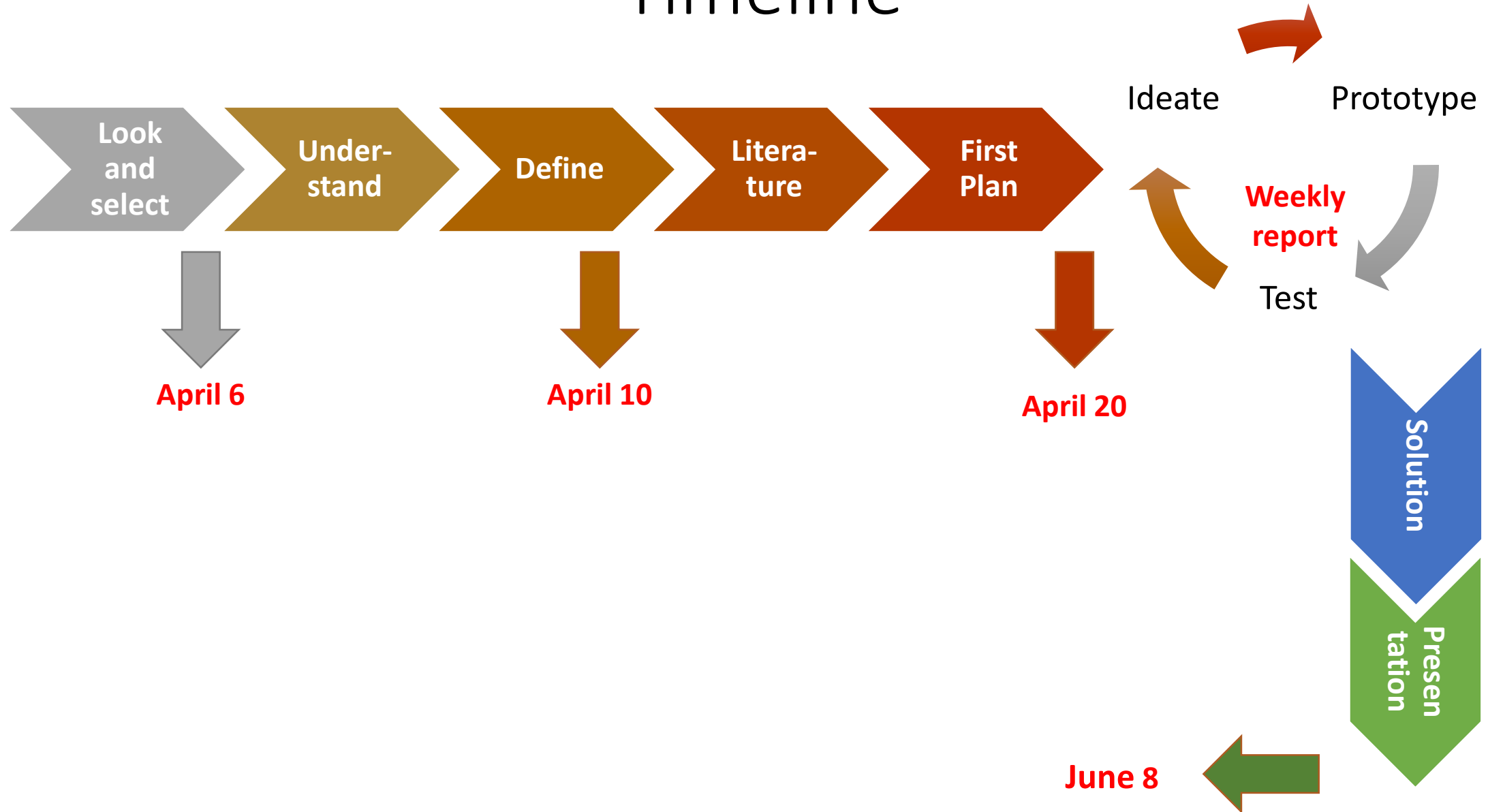


Timeline



Deliverables (each group provides its deliverables)

- April 6
 - For each student: first and last name, email, telephone, home adress, Bachelor degree, special status/requirements (e.g. student worker)
 - Argument of the project
 - Tentative title
 - Very preliminary description of the problem
 - Description of the tentative goal of the project

The form is a structured template for project deliverables. It includes the following sections:

- Student Information:** Fields for Name, Email, Telephone, Home Address, Bachelor Degree, and Special Status/Requirements.
- Project Information:** Fields for Argument of the project, Tentative title, Very preliminary description of the problem, and Description of the tentative goal of the project.

Deliverables (each group provides its deliverables)

- April 10
 - A powerpoint file to be presented to the class (20 minutes), including
 - description of the problem
 - description of the needs
 - description of the main challenges
 - description of the project goals
 - description of the outline of the development foresee
 - relation with existing researches products
 - a.o.b.



Deliverables (each group provides its deliverables)

- April 20
 - A word file containing the first assesment of the problem and the first outline of the approach/development
 - full description of the problem, needs and challanges
 - related literature
 - project activities and tasks and their temporal and functional relations (tentative Gantt chart)
 - tecnologies to be used
 - tools to be used
 - a.o.b.



Deliverables (weekly report)

- April 20-June 1
 - Weekly meeting with the teacher to assess the project status
 - Delivery of a short word document (half page) describing the problems and advances of the project

A screenshot of a 'Weekly Progress Report' form on a dark blue background with white text. The form includes fields for WPR number, Enrollment Number, Program, Student Name, Company Name, Industry Guide's Name, Faculty Guide's Name, and Project Title. It also has a section for 'TARGETS SET FOR THE WEEK' with a numbered list of three items.

Weekly Progress Report

WPR: 1 Enrollment Number: A2305212150

Program: B.Tech. CSE Student Name: Manas Shukla

Company Name: Holidify Travels Pvt. Ltd.

Industry Guide's Name: Mr. Kovid Kapoor

Faculty Guide's Name: Ms. Shweta Bhardwaj

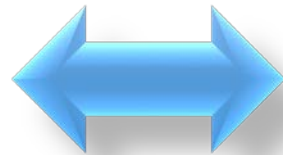
Project Title: Working on Official Android Application of Holidify

TARGETS SET FOR THE WEEK:

1. Implementing a caching strategy for the initial screen shown to the user.
2. Using Google's Places API to show relevant information to the user.
3. Designing the navigation drawer using material design guidelines.

Deliverables (final presentation)

- June 8
 - A presentation to the classroom (30 minutes) describing project and achievements
 - A word report with describing in detail project, results, implementations etc, with technical details for future programmers
 - A CD containing the above two documents and all the developed software



Projects suggestions : Personnel scheduling

- The problem concern the automated definition of the shifts of the medicians in a first-aid department of an hospital (namely ospedale S. Maria Nuova, Reggio Emilia)
- Existing material:
 - A general description of the problem
 - A mathematical model
 - An Xpress implementation with Excel for I/O support



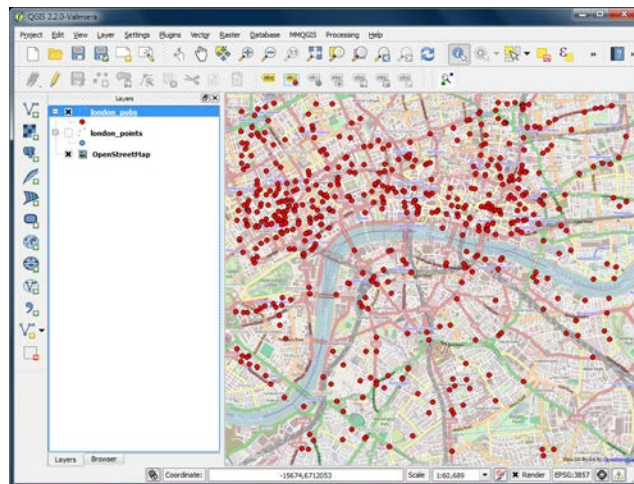
Projects suggestions : Personnel scheduling

- Possible activities

- Preliminary activities : Revise problem description, mathematical model, implementation
- Write a web based application using XPRESS on the server side and appropriate human interfaces on the client side
- Write a user interface to make manual choices on an existing solution: this includes feasibility checks and appropriate messages
- Write (re)-optimization algorithms to deal with manual constraints and choices, based on XPRESS
- Write a mobile phone app to interact/modify an existing solution
- Develop an heuristic algorithm not based on XPRESS to solve the problem
- Write (re)-optimization algorithms to deal with manual constraints and choices, NOT based on XPRESS

Projects suggestions : GIS based routing

- The problem starts from an input GIS map, and additional information (on excel/text/DB) and applies routing optimization algorithms giving as output new GIS layers, and additional informations
- Existing material
 - C++ classes (framework) to read shapefiles and text files
 - A basic VRP algorithm (fortran)
 - Some C++ routines to write GIS layouts from routes



Projects suggestions : GIS based routing

- Possible activities

- Revise the C++ classes to interact with the shapefiles (new classes or restructuration of existing ones)
- Embed a simple VRP /CVRP (e.g. Clark and Wright) with the GIS interaction framework
- Develop dial-a-ride algorithms to be embedded in GIS interaction framework (existing or new)
- Develop eco-routing VRP algorithms to be embedded in GIS interaction framework (existing or new)
- Develop EV routing algorithms to be embedded in GIS interaction framework (existing or new)
- Develop client-server based on mobile and standard VRP optimization algorithms on server side