Pacman Analysis

Pac-man is a 1980's arcade game created by Toru Iwatani and published by Namco, which at the time it was quite a popular game. The game's objective was to get the highest score possible by collecting/eating items around the map and running away from the ghost that will end up killing the player. The game is inspired form a children's story where a creature would protect children from monsters by eating them. The shape of Pac-man was also inspired by food as Mr. Iwatani from a pizza that had a missing piece.
The objective of the game is to eat all dots and get as many points as possible while being careful not being caught by the ghosts. Points can be collected by collecting the dots around there are also bigger ones that give more points and the ghost are turn blue so that they can be eaten giving more points special if eating multiple ones after each other. From time to time the game also spawns fruit like chary that also give an amount of point depending on the fruit.
At the time technology was still lacking and most video games where created with the 8 bit style with pacman happens to be one using the utilities of Namco.

Namco Pac-Man specifications

- Main CPU: Zilog Z80 @ 3.072 MHz
  - Instruction set: 8-bit & 16-bit instructions @ 460,000 instructions per second
- Sound chip: Namco WSG (**W**aveform **S**ound **G**enerator)[3]
  - Sample-based synthesis: 3-channels of single-cycle wavetable-lookup synthesis, 4-bit waveform samples
- GPU: Namco NVC293 video shifter
- Video resolution: 224×288 (*Pac-Man*) or 288×224 (*Rally-X* and *New Rally-X* have the monitor turned on its side)
- Frame rate: 60.61 frames per second
- ROM: 16 KB (*Pac-Man*, *Rally-X*), 22 KB (*Ali Baba and 40 Thieves*), 32 KB (*Jungler*)
- RAM: 4 KB (*Pac-Man*) to 6 KB (*Rally-X*)
  - Main RAM: 2 KB
  - Video RAM: 2 KB (*Pac-Man*) to 4 KB (*Rally-X*)
- Color depth: 8-bit (256 colors), 9-bit (512 colors),[8] 10-bit (1024 colors)
  - Colors on screen: 16 (*Pac-Man*), 32 (*Pengo*), 64 (*Rally-X*)
- Graphical planes:
  - Sprite layer: 8 sprites on screen, 64 sprites in memory, 16×16 pixels size, 4 colors per sprite, sprite flipping
  - Tilemap background: 8×8 tiles, 4 colors per tile, scrolling (*Rally-X*)
  - Radar tilemap (*Rally-X*)

It was developed by a small team of nine man, but mainly;

Designed by Toru Iwatani,
Programmed by Shigeo Funaki,
Composed by Toshio Kai.